TECHNICAL BULLETIN

Occupational and Environmental Health
Food Sanitation

HEADQUARTERS, DEPARTMENT OF THE ARMY

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OCCUPATIONAL AND ENVIRONMENTAL HEALTH
FOOD SANITATION

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*This bulletin supersedes TB MED 530, November 1991.

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CHAPTER 1
OVERVIEW

1-1. Purpose

This bulletin —

a. Prescribes procedures for implementing the Army FOOD service sanitation program referenced by AR 40–5.

b. Applies to all FOOD ESTABLISHMENT operations within the U.S. Army and areas under its control, including the U.S. Army Reserve and U.S. Army National Guard FOOD ESTABLISHMENTS, Army and Air Force Exchange Service (AAFES), and nonappropriated fund (NAF) activities, and WILL be incorporated into contract requirements. (The Defense Commissary Agency (DeCA) cites the U.S. Food and Drug Administration's (FDA) *Food Code* and does not have to use this bulletin in their contracts. However, DeCA reserves the right to cite this bulletin in the future.)

1-2. References

Referenced publications and prescribed forms and labels are listed in appendix A.

1-3. Explanation of Abbreviations and Terms

a. Abbreviations used in this bulletin are explained in the glossary.

b. All words and terms that are capitalized within the text of this bulletin are defined in the glossary and alert the reader to the fact that—

(1) There is a specific meaning assigned to those words and terms, and

(2) The meaning of a provision is to be interpreted in the defined context.

1-4. History

a. In the last decade, evolutional changes in communication, science, and technology have drastically changed, and sometimes challenged, how we approach FOOD safety and public health protection. FOOD previously believed to be NONPOTENTIALLY HAZARDOUS due to its acidity, WATER ACTIVITY (a_w), or external control of temperature or availability of oxygen have now been implicated in FOODBORNE DISEASE OUTBREAKS. To be effective, responsibilities for new FOOD safety and public health protection programs must be shared between the FOOD industry, the Government, and the public.

b. On 25 January 1997, the President of the United States announced the beginning of a National Food Safety Initiative to reduce the number of foodborne illnesses. This initiative emphasizes program development to enhance the surveillance and reporting of foodborne illnesses, development of new research methods for pathogen detection, improvement in inspection programs to include the implementation of risk-based Hazard Analysis Critical Control Point (HACCP) programs, and greater FOOD safety education. As a leader and a partner in the public health community, the U.S. Army embraces the National Food Safety Initiative through the development and implementation of this bulletin.

c. This bulletin incorporates the fundamental principles of the latest FDA's *Food Code.* These principles are recognized and endorsed by the following agencies and organizations:

(1) U.S. Food and Drug Administration (FDA).

(2) U.S. Department of Agriculture (USDA).

(3) Centers for Disease Control and Prevention (CDC).

(4) U.S. Environmental Protection Agency (EPA).

(5) Conference for Food Protection.

(6) American Public Health Association.

(7) National Environmental Health Association.

(8) National Restaurant Association.

(9) National Automatic Merchandising Association (NAMA).

(10) National Sanitation Foundation (NSF) International.

(11) Food Marketing Institute.

(12) World Health Organization Food Safety Unit.

d. The fundamental foundation of this bulletin is the use of recognized science and technology and the application of HACCP principles to reduce the occurrences of foodborne illnesses.

(1) Traditional sanitary inspections using earlier versions of Technical Bulletin, Medical (TB MED) 530 and model codes focused primarily on general sanitation.

(2) The intent of this latest version of TB MED 530 is to place primary emphasis on the FOOD and the FOOD EMPLOYEES handling the FOOD without neglecting or compromising the need for a strong sanitation program. The focus now is to understand the causes of foodborne illnesses, by observing FOOD preparation and handling practices, and to implement controls to reduce the risk of foodborne illnesses or injuries associ-

ated with each of these areas.

e. To properly use and understand this bulletin, the MEDICAL COMMANDER or designated representative, as defined in the glossary, WILL have a basic understanding of FOOD microbiology, FOOD technology, epidemiology, HACCP principles, and effective communication skills.

1-5. Information to Assist the User

This bulletin contains many changes in structure, nomenclature, and methodology. It addresses essentially five areas: personnel (chap 2), FOOD (chap 3), EQUIPMENT/FOOD ESTABLISHMENTS/materials (chaps 4, 5, 6, 7, and 11), unique FOOD service operations (chaps 7, 8, 9, and 10), and compliance and enforcement (chap 12). We recommend a new user review the table of contents and this section to quickly gain an understanding of the scope, language, intent, and sequence of subjects included within these five areas.

a. The structural nomenclature of this bulletin is as follows, using the design and smoothness for FOOD-CONTACT SURFACES on EQUIPMENT as an example:

(1) Chapter 4
(2) Section IV
(3) Paragraph ¶ 4-18*a* or 4-18*b* (1)

b. Internal cross referencing is widely used throughout the document to reduce the need for restating requirements. For example, the same proper product temperatures are relevant to both TEMPORARY FOOD ESTABLISHMENTS (chap 8) and FOOD (chap 3). To alert the reader to relevant information and provide a system by which each violation is correctly recorded under the most appropriate provision, this bulletin uses the phrase "...as specified in (followed by a chapter, section, or paragraph)."

c. This bulletin presents requirements by principle rather than by subject. For example, EQUIPMENT requirements are presented under headings, such as Materials, Design and Construction, Numbers and Capacities, Location and Installation, and Maintenance and Operation, rather than by refrigerators, sinks, and thermometers. In this way, provisions need be stated only once rather than repeated for each piece or category of EQUIPMENT. Where there are special requirements for certain EQUIPMENT, the requirement is delineated under the appropriate principle (for example, Design and Construction) and listed separately in the index.

d. Some provisions within this bulletin are written in *italic* font. These provisions are not requirements, but they provide relevant information about specific exceptions and alternative means for compliance. Due to their intent as specific exceptions and alternative means for compliance, these sections SHOULD not be cited as violation references.

e. A new change within this bulletin is the three categories of violations, based on public health significance: CRITICAL; "pivotal" (that is, those violations that may or may not be CRITICAL depending on the circumstances); and noncritical. A bold asterisk * after a paragraph title or a paragraph indicates that all of the provisions within that paragraph are CRITICAL unless otherwise indicated, as follows:

(1) Any provisions that are "pivotal" items are followed by the bold, superscripted letter^{P}; and

(2) Any provisions that are noncritical are followed by the bold, superscripted letter^{N}.

(3) Any unmarked provisions within a corresponding paragraph that has an asterisk are CRITICAL. All provisions following a paragraph that is not marked with an asterisk are noncritical.

1-6. Procedures

The Military FOOD Safety mission is a complex, comprehensive, integrated system that has been developed and maintained by highly motivated, well-trained military and Department of the Army civilian personnel. Military personnel are required to take their missions to the field, aboard helicopter transports to ships at sea, and relocate with the mission as necessary. These Government agents are reliable, flexible, and under orders to do whatever is necessary to accomplish the mission. To maintain military readiness, the Military FOOD Safety mission SHOULD not be outsourced. AR 30-1, chapter 2, provides the responsibilities of the Army special staff and field command elements related to the Army FOOD service program. To fulfill those responsibilities, use the following specific procedures:

a. The installation commander—

(1) Maintains the sanitary control of all FOOD and BEVERAGES served or dispensed at the installation.

(2) Ensures that FOOD and BEVERAGES are served only through APPROVED FOOD ESTABLISHMENTS or VENDING MACHINES and operations.

(3) Ensures that the construction, alteration, or modification of FOOD ESTABLISHMENTS are accomplished only after the plans and specifications have been reviewed and APPROVED by the MEDICAL COMMANDER or designated representative. Upon completion of such projects, ensures that the FOOD ESTABLISHMENT does not begin operations without a satisfactory on-site evaluation by the MEDICAL COMMANDER or designated representative.

(4) Ensures the FOOD ESTABLISHMENT'S supervisory personnel and FOOD EMPLOYEES are trained as specified in chapter 2, section V.

(5) Ensures that all individuals handling or serving FOOD have received medical clearances as required

in chapter 2, section II.

b. The MEDICAL COMMANDER or designated representative—

(1) Advises the installation commander of the FOOD sanitation and FOOD safety implications of military operations.

(2) Conducts inspections of FOOD ESTABLISHMENTS to determine compliance with this bulletin and referenced documents.

(3) Determines requirements for providing medical examinations of FOOD EMPLOYEES.

(4) Conducts medical examinations as required in chapter 2, section II. Ensures that the requirements as specified in ¶ 2-6 are followed if medical examinations of contract FOOD EMPLOYEES are provided at contractor's cost by the MEDICAL COMMANDER or designated representative.

(5) Conducts, coordinates, and provides technical guidance, assistance, training, and consultation in the presentation of FOOD service SANITATION TRAINING as specified in chapter 2, section V.

(6) Reviews plans; blueprints; specifications; intended menus; anticipated volume of FOOD to be stored, prepared, sold, or served; and HACCP PLANS when applicable for all new construction, renovation, or modification of existing FOOD ESTABLISHMENTS, EQUIPMENT, and UTENSILS. Use U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) Technical Guide (TG) No. 194.

(7) Conducts epidemiological investigations of suspected FOODBORNE DISEASE OUTBREAKS.

(8) Ensures that personnel conducting preventive medicine inspections of FOOD ESTABLISHMENTS are technically proficient (that is, 91S School; Officer PM School; or degree in food science, or related field, training specified in ¶ 2-18*a*(1); and supervisor monitors and verifies technical proficiency) to assist FOOD ESTABLISHMENT personnel in matters of FOOD safety and sanitation.

(9) Ensures that preventive medicine personnel have completed the certified training program for the PERSON-IN-CHARGE, or equivalent, as specified in ¶ 2-19, or perform assigned tasks under direct supervision of a certified preventive medicine individual.

(10) Participates in integrated pest management (IPM) programs through pest surveillance of insects, rodents, and other pests in FOOD products and FOOD ESTABLISHMENTS. Provides results to pest management personnel.

(11) Provides guidance to FOOD ESTABLISHMENT personnel on nonchemical control measures to prevent or control pests. Notifies pest management personnel when nonchemical techniques have failed to control the presence or infestations of insects and when supplementary chemical control measures may be needed.

(12) Coordinates joint FOOD ESTABLISHMENT or FOOD evaluations, inspections, training programs, and epidemiological investigations with the local U.S. Army Veterinary Services personnel, and or local, State, or Federal agencies.

c. The U.S. Army Veterinary Command (VETCOM) commander or major Army command (MACOM) staff veterinarian—

(1) Conducts necessary sanitation inspections or audits, investigates reports of FOOD infested, ADULTERATED, or damaged by pests; and reports damage following guidance in AR 40-657/NAVSUPINST 4355.4F/MCO P10110.31G.

(2) Conducts other inspections related to veterinary aspects of FOOD procurement; processing, storage, shipment, receipt, and distribution per AR 40-657/NAVSUPINST 4355.4F/MCO P10110.31G.

d. The installation FOOD advisor (IFA)—

(1) Ensures that FOOD service contracts include requirements that contractor PERSON-IN-CHARGE and FOOD EMPLOYEES, including contract kitchen police (KP), receive SANITATION TRAINING required as specified in chapter 2, section V.

(2) Assists the contract officer representative (COR), in coordination with the MEDICAL COMMANDER or designated representative, in developing contract FOOD service sanitation and FOOD safety standards and in evaluating contractor performance of FOOD service sanitation and safety requirements.

(3) Provides the MEDICAL COMMANDER or designated representative with distribution and dissemination instructions for inspection reports and evaluations of contract FOOD operations.

(4) Ensures that military personnel detailed by duty roster (KP) to perform other than primary FOOD preparation duties receive adequate training to perform their duties (for example, dish and pot and pan washing and SANITIZING, vegetable preparation, cleaning and SANITIZING FOOD service EQUIPMENT and FOOD-CONTACT SURFACES, and basic housekeeping).

(5) Ensures that detailed military KP supervisors, in addition to completing the training for military KP as specified in ¶ (4) above, receive at least 4 hours of training in basic FOOD safety and sanitation as specified in ¶ 2-19. The military supervisor training WILL be documented prior to the detail assignment.

(6) Provides the MEDICAL COMMANDER or designated representative with a list of military KP supervisors who have completed training as specified in ¶ (5) above.

e. The FOOD ESTABLISHMENT manager—

(1) Provides safe FOOD prepared under clean sanitary conditions and in compliance with all provisions of this bulletin.

(2) Being properly trained on the principles of FOOD service sanitation and safety, demonstrates his or her knowledge of FOODBORNE DISEASE prevention, application of the HACCP principles, and the requirements of this bulletin as specified in chapter 2.

(3) Ensures that all FOOD EMPLOYEES under his or her control are trained as specified in chapter 2.

(4) Ensures that all FOOD EMPLOYEES comply with the provisions of this bulletin.

(5) Maintains a copy of this bulletin at each FOOD ESTABLISHMENT. *VENDING MACHINE LOCATIONS and mobile FOOD units are exempted from this requirement.*

CHAPTER 2
MANAGEMENT AND PERSONNEL

Section I. SUPERVISION

2-1. Person-in-Charge*

The FOOD ESTABLISHMENT manager WILL—

a. Be the PERSON-IN-CHARGE or WILL designate a PERSON-IN-CHARGE.

b. Ensure that a PERSON-IN-CHARGE is present at the FOOD ESTABLISHMENT during all hours of operation.

c. Ensure that all FOOD handlers receive medical clearances as required by the MEDICAL COMMANDER or designated representative.

2-2. Demonstration of Knowledge*

a. Based on the risks of foodborne illness inherent to the FOOD operation being inspected and upon the request of the MEDICAL COMMANDER or designated representative, the PERSON-IN-CHARGE WILL—

(1) Demonstrate knowledge of—

(a) Foodborne disease prevention.

(b) Application of the HACCP principles.

(c) The requirements of this bulletin.

(2) Demonstrate this knowledge by—

(a) Complying with this bulletin.

(b) Being a certified FOOD protection manager who has shown proficiency of required information by passing a test that is part of an accredited program (see ¶ 2-18).

(c) Responding correctly to the inspector's questions as they relate to the specific FOOD operation conducted in the FOOD ESTABLISHMENT.

b. The areas of knowledge include—

(1) Describing the relationship between the prevention of foodborne disease and the personal hygiene of a FOOD EMPLOYEE.

(2) Explaining the responsibility of the PERSON-IN-CHARGE for preventing the transmission of foodborne disease by a FOOD EMPLOYEE who has a disease or medical condition that may cause foodborne disease.

(3) Describing the symptoms associated with the diseases that are transmissible through FOOD.

(4) Explaining the significance of the relationship between maintaining the time and temperature of POTENTIALLY HAZARDOUS FOOD (PHF) and the prevention of foodborne illness.

(5) Explaining the HAZARDS involved in the consumption of raw or undercooked MEAT, POULTRY, EGGS, and FISH.

(6) Stating the required FOOD temperatures and times for the safe cooking of PHF including MEAT, POULTRY, eggs, and FISH.

(7) Stating the required temperatures and times for the safe refrigerated storage, hot holding, cooling, and reheating of PHF.

(8) Describing the relationship between the prevention of foodborne illness and the management and control of the following:

(a) Cross contamination.

(b) Hand contact with READY-TO-EAT FOODS.

(c) Handwashing.

(d) Maintaining the FOOD ESTABLISHMENT in a clean condition and in good repair.

(9) Explaining the relationship between FOOD safety and providing EQUIPMENT that is—

(a) Sufficient in number and capacity.

(b) Properly designed, constructed, located, installed, operated, maintained, and cleaned.

(10) Explaining correct procedures for cleaning and SANITIZING UTENSILS and FOOD-CONTACT SURFACES of EQUIPMENT.

(11) Identifying the source of water used and measures taken to ensure that it remains protected from contamination, such as providing protection from backflow and precluding the creation of cross connections.

(12) Identifying POISONOUS OR TOXIC MATERIALS in the FOOD ESTABLISHMENT and the procedures necessary to ensure that they are safely stored, dispensed, used, and disposed of according to LAW.

(13) Identifying CRITICAL CONTROL POINTS (CCPs) in the operation from purchasing through sale or service that when not controlled may contribute to the transmission of foodborne illness, and explaining steps taken to ensure that the points are controlled per the requirements of this bulletin.

(14) Explaining the details of how the PERSON-IN-CHARGE and FOOD EMPLOYEES comply with the HACCP PLAN, if a plan is required by the LAW; this bulletin; or an agreement between the REGULATORY AUTHORITY and the FOOD ESTABLISHMENT.

(15) Explaining the procedures, rights, and authorities assigned by this bulletin to the—

(a) FOOD EMPLOYEE.

(b) PERSON-IN-CHARGE.

(c) MEDICAL COMMANDER or designated representative.

2-3. Duties of Person-in-Charge

The PERSON-IN-CHARGE will ensure that—

a. FOOD ESTABLISHMENT operations are not conducted in a private home or in a room used as living or sleeping quarters as specified in ¶ 6-25.

b. PERSONS unnecessary to the FOOD ESTABLISHMENT operation are not allowed in the FOOD preparation, FOOD storage, or WAREWASHING areas. If steps are taken to ensure that exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; and unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES are protected from contamination, the PERSON-IN-CHARGE may authorize brief visits and tours.

c. EMPLOYEES and other PERSONS, such as delivery and maintenance PERSONS and pesticide applicators, entering the FOOD preparation, FOOD storage, and WAREWASHING areas comply with this bulletin.

d. EMPLOYEES are effectively cleaning their hands by routinely monitoring the EMPLOYEES' handwashing.

e. EMPLOYEES are visibly observing FOODS as they are received to determine that they are from APPROVED sources, delivered at the required temperatures, protected from contamination, UNADULTERATED, and accurately presented by—

(1) Routinely monitoring the EMPLOYEES' observations,

(2) Reviewing receiving documents, and

(3) Periodically evaluating FOODS upon their receipt.

f. EMPLOYEES are properly cooking PHF, being particularly careful in cooking those FOODS known to cause severe foodborne illness and death, such as eggs and COMMINUTED MEATS, through daily—

(1) Oversight of the EMPLOYEES' routine monitoring of the cooking temperatures, and

(2) Evaluation of the cooks' worksheets and other logs.

g. EMPLOYEES are using proper methods to rapidly cool PHFs that are not held hot through daily oversight of the EMPLOYEES' routine monitoring of FOOD temperatures during cooling.

h. EMPLOYEES are properly SANITIZING cleaned multiuse EQUIPMENT and UTENSILS before they are reused through—

(1) Routine monitoring of solution temperature and exposure time for hot water SANITIZING.

(2) Chemical concentration, hydrogen-ion concentration (pH), temperature, and exposure time for chemical SANITIZING.

i. CONSUMERS are notified that clean TABLEWARE is to be used when they return to self-service areas, such as salad bars and buffets, as specified in ¶ 3-29.

j. Operation ceases and the MEDICAL COMMANDER or designated representative is immediately notified in the event of fire, storm, flood, mechanical breakdown, extended power outage (greater than 2 hours), loss of DRINKING WATER (potable source), backup of SEWAGE, onset of apparent foodborne illness, IMMINENT HEALTH HAZARD, or similar event that may—

(1) Result in the contamination of FOOD.

(2) Prevent PHF from being held at required temperatures.

(3) Prevent proper, uninterrupted cooking, reheating, or cooling of PHF.

Section II. EMPLOYEE HEALTH

2-4. Reportable Information*

The PERSON-IN-CHARGE WILL require FOOD EMPLOYEES and FOOD EMPLOYEE applicants to whom a conditional offer of employment is made to report information about their health and activities as they relate to diseases that are transmissible through FOOD. A FOOD EMPLOYEE or applicant WILL report the information, including symptom and the date of onset of jaundice or of an illness specified below, in a manner that allows the PERSON-IN-CHARGE to prevent the likelihood of foodborne disease transmission, if the FOOD EMPLOYEE or applicant—

a. Has a symptom caused by illness, infection, or other source that is—

(1) Associated with an acute gastrointestinal illness, such as—

(a) Diarrhea.

(b) Fever.

(c) Vomiting.

(d) Jaundice.

(e) Sore throat with fever.

(2) A lesion containing pus, such as a boil or infected wound, that is open or draining and is—

(a) On the hands or wrists, *unless an impermeable cover, such as a finger cot or stall, protects the lesion and a SINGLE-USE glove is worn over the impermeable cover.*

(b) On exposed portions of the arms, *unless the lesion is protected by an impermeable cover.*

(c) On other parts of the body, *unless the lesion is covered by a dry, durable, tight-fitting bandage.*

b. Is diagnosed with an illness due to—

(1) *Salmonella typhi* (*S. typhi*).

(2) *Shigella* spp.

(3) *E. coli* 0157:H7.

(4) Hepatitis A virus.

(5) Other disease transmissible through FOOD, such as Amebiasis, Camplyobacteriosis, Cholera, Norwalk virus, Giardiasis, Staphylococcal or Streptococcal infections, or Yersiniosis.

c. Had a past illness from an infectious agent specified in ¶ *b* above.

d. Meets one or more of the following high-risk conditions:

(1) Is suspected of causing, or being exposed to, a CONFIRMED DISEASE OUTBREAK caused by *S. typhi*, *Shigella* spp., *E. coli* 0157:H7, or hepatitis A virus, including an outbreak at an event (such as a family meal, church supper, or festival), because the FOOD EMPLOYEE or applicant—

(a) Prepared FOOD implicated in the outbreak, or

(b) Consumed FOOD implicated in the outbreak, or

(c) Consumed FOOD at the event that is prepared by a PERSON who is infected or ill with the infectious agent that caused the outbreak or who is suspected of being a spreader of the infectious agent.

(2) Lives in the same household as a PERSON who is diagnosed with a disease caused by *S. typhi*, *Shigella* spp., *E. coli* 0157:H7, or hepatitis A virus; or exhibits symptoms specified in ¶ *a* above.

(3) Lives in the same household as a PERSON who attends or works in a setting where there is a CONFIRMED DISEASE OUTBREAK caused by *S. typhi*, *Shigella* spp., *E. coli* 0157:H7, or hepatitis A virus.

(4) Traveled out of the Continental United States (CONUS) to areas with identified epidemic or endemic gastrointestinal diseases, or worked outside the Continental United States (OCONUS) and traveled to areas with identified epidemic or endemic gastrointestinal diseases. High-risk geographical areas are published in—

(a) Health Information for International Travel by CDC.

(b) Medical Environmental Disease Intelligence and Countermeasures by the Armed Forces Medical Intelligence Center, Fort Detrick, 1607 Porter Street, Frederick, MD 21702-5004.

2-5. Employee Exclusions and Restrictions*

a. The PERSON-IN-CHARGE WILL—

(1) Exclude a FOOD EMPLOYEE from a FOOD ESTABLISHMENT if the FOOD EMPLOYEE is diagnosed with an infectious agent specified in ¶ 2-4*b*.

(2) Restrict a FOOD EMPLOYEE from working with exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; and unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES in a FOOD ESTABLISHMENT if the FOOD EMPLOYEE is—

(a) Suffering from a symptom specified in ¶ 2-4*a*.

(b) Not experiencing a symptom of acute gastroenteritis specified in ¶ 2-4a(1), but has a stool that yields a specimen culture that is positive for *S. typhi*, *Shigella* spp., or *E. coli* 0157:H7.

(3) If the population served is a HIGHLY SUSCEPTIBLE POPULATION, exclude a FOOD EMPLOYEE who—

(a) Is experiencing a symptom of acute gastrointestinal illness specified in ¶ 2-4*a*(1), and meets a high-risk condition specified in ¶¶ 2-4*d*(1) through (4).

(b) Is not experiencing a symptom of acute gastroenteritis specified in ¶ 2-4*a*(1), but has a stool that yields a specimen culture that is positive for *S. typhi*, *Shigella* spp., or *E. coli* 0157:H7.

(c) Had a past illness from *S. typhi* within the last 3 months.

(d) Had a past illness from *Shigella* spp. or *E. coli* 0157:H7 within the last month.

(4) For a FOOD EMPLOYEE who is jaundiced and if the onset of jaundice occurred within the last 7 calendar days, exclude the FOOD EMPLOYEE from the FOOD ESTABLISHMENT. An excluded FOOD EMPLOYEE WILL be cleared by the MEDICAL COMMANDER or designated representative prior to returning to FOOD operations.

b. All FOOD EMPLOYEES excluded from FOOD operations or suspected of being exposed to or having symptoms of illnesses mentioned in ¶¶ a(2) through a(4) above and ¶¶ 2-4 and 2-6 WILL be referred to the MEDICAL COMMANDER or designated representative by the supporting medical activity.

2-6. Removal of Exclusions and Restrictions

a. The PERSON-IN-CHARGE may remove—

(1) An exclusion for certain illnesses specified in ¶ 2-4*b*, if he or she obtains approval from the MEDICAL COMMANDER or designated representative. The PERSON excluded in ¶ 2-5*a* (1) WILL provide written medical documentation (from a physician licensed to practice medicine or the MEDICAL COMMANDER or designated representative) to the PERSON-IN-CHARGE that specifies that

the excluded PERSON may work in an unrestricted capacity in a FOOD ESTABLISHMENT, including a FOOD ESTABLISHMENT that serves a HIGHLY SUSCEPTIBLE POPULATION, because the PERSON is free of the infectious agent of concern.

(2) A restriction for certain symptoms as specified in—

(a) ¶ 2-4*a*(1), if the restricted PERSON—

1. Is free of the symptoms and no foodborne illness occurs that may have been caused by the restricted PERSON.

2. Is suspected of causing foodborne illness but is free of the symptoms. The restricted person WILL provide written medical documentation (from a physician licensed to practice medicine or the MEDICAL COMMANDER or designated representative) to the PERSON-IN-CHARGE stating that the restricted PERSON is free of the infectious agent that is suspected of causing the PERSON's symptoms or causing foodborne illness or that the symptoms experienced result from a chronic noninfectious condition, such as Crohn's disease, irritable bowel syndrome, or ulcerative colitis.

(b) ¶ 2-4*b*, if the restricted PERSON provides written medical documentation (from a physician licensed to practice medicine or the MEDICAL COMMANDER or designated representative) that indicates the stools are free of *S. typhi*, *Shigella* spp., or *E. coli* 0157:H7, whichever is the infectious agent of concern.

(3) An exclusion involving EMPLOYEES serving HIGHLY SUSCEPTIBLE POPULATIONS as specified in ¶ 2-5*a*(3), if the excluded PERSON provides written medical documentation (from a physician licensed to practice medicine or the MEDICAL COMMANDER or designated representative) that specifies that the PERSON is free of *S. typhi*, *Shigella* spp., *E. coli* 0157:H7, hepatitis A virus infection, or other disease transmissible through FOOD, whichever is the infectious agent of concern.

(4) An exclusion for jaundice as specified in ¶ 2-5*a*(4) if no foodborne illness occurs that may have been caused by the excluded PERSON and the PERSON provides written medical documentation (from a physician licensed to practice medicine or the MEDICAL COMMANDER or designated representative) that specifies that the PERSON is free of hepatitis A virus.

b. Tables 2-1 and 2-2 (located at the end of this chapter) may be used as an aid to quick reference exclusion and restriction requirements, and clearance requirements to remove exclusion and restriction status as specified in ¶¶ a(1) through a(4) above and ¶¶ 2-4 and 2-5.

2-7. Reporting by the Person-in-Charge*

The PERSON-IN-CHARGE—

a. WILL notify the MEDICAL COMMANDER or designated representative of a FOOD EMPLOYEE or a FOOD EMPLOYEE applicant who is diagnosed with or is exhibiting symptoms (as specified in ¶ 2-4*a*) of an illness due to *S. typhi*, *Shigella* spp., *E. coli* 0157:H7, hepatitis A virus, or other foodborne illness.

b. WILL not allow FOOD EMPLOYEES or applicants to work until such time they have a medical release from the MEDICAL COMMANDER or designated representative.

Section III. PERSONAL CLEANLINESS

2-8. Hands and Exposed Arms, Clean Condition*

FOOD employees WILL—

a. Vigorously wash their hands and the exposed portions of their arms with soap and warm water for at least 20 seconds followed by a thorough rinsing with clean water at designated handwashing facilities as specified in chapter 5, section VI.

b. Pay particular attention to the areas underneath the fingernails and between the fingers.

c. Wash their hands and exposed portions of their arms at the following times:

(1) Immediately before engaging in FOOD preparation, including working with exposed FOOD, clean EQUIPMENT and UTENSILS, and unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES.

(2) After touching bare human body parts other than clean hands and clean, exposed portions of arms.

(3) After using the toilet.

(4) After caring for or handling SUPPORT ANIMALS or aquatic animals as specified in ¶¶ 2-17 or 6-26.

(5) After coughing, sneezing, using a handkerchief or disposable tissue, using tobacco, eating, or drinking.

(6) After handling soiled EQUIPMENT or UTENSILS.

(7) During FOOD preparation, as often as necessary to remove soil and contamination and to prevent cross contamination when changing tasks.

(8) When switching between working with raw FOOD and working with READY-TO-EAT FOOD.

(9) After engaging in other activities that contaminate the hands.

2-9. Where to Wash

FOOD EMPLOYEES—

a. WILL clean their hands in a handwashing lavatory.

b. WILL not clean their hands in a sink used for FOOD preparation or in a service sink or a curbed cleaning facility used for the disposal of mop water and similar liquid waste.

2-10. Hand Sanitizers

a. A hand sanitizer and a chemical hand sanitizing solution used as a hand dip WILL—

(1) Have active antimicrobial ingredients that are—

(a) Listed as safe and effective for application to human skin as an antiseptic handwash in a monograph for over-the-counter healthcare antiseptic drug products.

(b) Previously authorized, and listed for such use in USDA Publication No. 1419.

(2) Have components that are—

(a) Regulated for the intended use as FOOD ADDITIVES as specified in part 178, title 21, CODE OF FEDERAL REGULATIONS (21 CFR 178).

(b) Generally recognized as safe (GRAS) for the intended use in contact with FOOD within the meaning of the Federal Food, Drug, and Cosmetic Act, Section 201(s).

(c) Exempted from the requirement of being listed in the Federal FOOD ADDITIVE regulations as specified in 21 CFR 170.39.

(3) Be applied only to hands that are thoroughly cleaned as specified in ¶ 2-8.

b. If a hand sanitizer or a chemical hand sanitizing solution used as a hand dip does not meet the criteria specified in ¶ a(2) above, use WILL be—

(1) Followed by thorough hand rinsing in clean water before hand contact with FOOD or by the use of gloves.

(2) Limited to situations that involve no direct contact with FOOD, FOOD-CONTACT SURFACES, and UTENSILS by the bare hands.

c. A chemical hand sanitizing solution used as a hand dip WILL be maintained clean and at a strength equivalent to at least 100-parts per million (ppm) chlorine.

2-11. Fingernail Maintenance

FOOD EMPLOYEES WILL—

a. Keep their fingernails trimmed, filed, and maintained so the edges and surfaces are cleanable, not rough, and do not extend beyond the fleshy portion of the fingertip.

b. Not wear artificial nails, nail jewelry, or any other nail products, such as nail polish or sparkles, during FOOD preparation or while serving FOOD.

2-12. Jewelry Prohibition

With the exception of a plain ring, such as a wedding band, or a medical bracelet, FOOD EMPLOYEES WILL not wear jewelry, which may be touched, while preparing or serving FOOD. Prohibited jewelry includes nose, tongue, and lip rings; other exposed body jewelry; and watches. This requirement minimizes contamination of hands and harborage of bacteria in the jewelry. EMPLOYEES who handle only closed FOOD containers, such as stop and shop operations, are exempt.

2-13. Outer Clothing Condition

FOOD EMPLOYEES WILL wear clean outer clothing to prevent contamination of FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES.

Section IV. HYGIENIC PRACTICES

2-14. Eating, Drinking, or Using Tobacco*

a. Except as specified in ¶ *b* below, an EMPLOYEE WILL eat, drink, or use any form of tobacco only in designated areas where the contamination of exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES; or other items needing protection cannot result.

b. A FOOD EMPLOYEE may drink from a closed BEVERAGE container with a protected drinking mechanism (sports bottle) if the container is handled in a manner that prevents contamination of—

(1) The EMPLOYEE's hands;

(2) The container; and

(3) Exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; and unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES.

2-15. Discharges from the Eyes, Nose, and Mouth*

FOOD EMPLOYEES experiencing persistent sneezing, coughing, or a runny nose that causes discharges from the eyes, nose, or mouth WILL not work with exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; or unwrapped SINGLE-SERVICE or SINGLE-USE ARTICLES.

2-16. Hair Restraints Effectiveness

a. Except as provided in ¶ *b* below, FOOD EMPLOYEES WILL wear authorized hair restraints (such as clean hats, hair coverings or nets, beard restraints, and clothing that covers body hair) that are designed and worn to effectively keep their hair from contacting exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; and unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES.

b. *¶ a above does not apply to FOOD EMPLOYEES, such as counter staff who only serve wrapped or PACKAGED BEVERAGES and FOODS; hostesses; and wait staff (waiters and waitresses) if they present a minimal risk of contaminating exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; and unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES.*

2-17. Handling Prohibition*

a. Except as specified in ¶ *b* below, FOOD EMPLOYEES may not care for or handle animals that may be present, such as patrol dogs, SUPPORT ANIMALS, or pets that are allowed as specified in ¶ 6-26.

b. *FOOD EMPLOYEES with SUPPORT ANIMALS may handle or care for their SUPPORT ANIMALS and FOOD EMPLOYEES may handle or care for FISH in aquariums or MOLLUSCAN SHELLFISH or crustacean in display tanks, if they wash their hands as specified in ¶ 2-8 and change outer clothing as specified in ¶ 2-13.*

Section V. TRAINING

2-18. Supervisor's or Person's-in-Charge Training

a. The PERSON-IN-CHARGE, the COR, the Quality Assurance Evaluator responsible for performing contract quality assurance functions on FOOD service contracts, and the FOOD SERVICE SUPERVISOR are required to—

(1) Attend a formal certified training program in FOOD sanitation that is equivalent in content and scope to the Education Foundation of the National Restaurant Association's *Applied Food Service Sanitation* course.

(2) Pass a written test for certification as a FOOD SERVICE MANAGER.

(3) Renew training certification every 4 years or complete 12 hours of continuing education approved by the MEDICAL COMMANDER or designated representative.

b. The Surgeon General (TSG) recognizes the following training programs:

(1) Educational Foundation of the National Restaurant Association's *Applied Food Service Sanitation* course. For course information, either write to National Restaurant Association, 250 South Wacker Drive, Suite 1400, ATTN: Customer Service, Chicago, IL 60606-5834; or telephone 1-800-765-2122, extension 380.

(2) Quartermaster Center and School's *Food Service Supervisor Training.*

(3) Educational Testing Service/Defense Activity for Nontraditional Education Support's (DANTES) *Food Protection Certification Program.* For program information, write to Education Testing Service/DANTES, P.O. Box 6604, Princeton, NJ 08541-6604; or telephone 1-800-257-9484.

(4) AAFES's Food Service Supervisory Sanitation Program.

c. The supervisor/PERSON-IN-CHARGE FOOD certified training program WILL include the following topics:

(1) FOOD (16 hours): Basic microbiology; foodborne disease; principles of FOOD protection, purchasing, receiving, storage, preparation, and serving.

(2) HACCP (4 hours): HACCP principles, general application in FOOD service operation, risk analysis.

(3) Facilities (8 hours): Cleaning and sanitation, water and waste disposal, handwashing, plumbing, non-FOOD supplies, construction and maintenance of PHYSICAL FACILITIES, pest control.

(4) FOOD Handlers (4 hours): Personal hygiene, health requirements, FOOD handling practices, operational problems.

(5) Management (4 hours): Self inspection, regulatory agencies, motivation, personnel training, cleaning schedules.

(6) Closed book (controlled) examination including review (4 hrs): Examination produced and graded by an outside independent agency, such as the Education Foundation or Educational Testing Services/DANTES.

d. Training records WILL be—

(1) Maintained at the applicable FOOD ESTABLISHMENT where FOOD EMPLOYEES work.

(2) Readily available for review by the MEDICAL COMMANDER or designated representative.

2-19. Food Employee's Training

a. Except as specified in ¶ *b* below, all FOOD EMPLOYEES and KP supervisors WILL receive a minimum of 8 hours introductory FOOD SANITATION TRAINING. New FOOD

EMPLOYEES WILL receive this 8-hour introductory training within 30 days of beginning FOOD service duties. All FOOD EMPLOYEES WILL receive a minimum 4-hour annual FOOD sanitation refresher training that may be accumulated over the 1-year time period after the initial or subsequent refresher training.

b. Temporary FOOD EMPLOYEES, assigned for 30 days or less, or bartenders, waiters, and waitresses that do not prepare FOOD only require 4 hours of initial training.

c. Training records WILL be—

(1) Maintained at the applicable FOOD ESTABLISHMENT where FOOD EMPLOYEES work.

(2) Readily available for review by the MEDICAL COMMANDER or designated representative.

Table 2-1. Exclusions and restrictions for FOOD EMPLOYEES and applicants.

Health status	FOOD establishments serving HIGHLY SUSCEPTIBLE POPULATION	FOOD establishments not serving HIGHLY SUSCEPTIBLE POPULATION
1. Diagnosed with illness due to *S. typhi*, *Shigella* spp., *E. coli* 0157:H7 or hepatitis A virus or other disease transmissible through FOOD. (See ¶ 2-4*b*(5).)	Exclude ¶ 2-5*a*(1)	Exclude ¶ 2-5*a*(1)
2. Experiencing a symptom listed in ¶ 2-4*a*.	Restrict ¶ 2-5*a*(2) *(a)*	Restrict ¶ 2-5*a*(2) *(a)*
3. Experiencing a symptom listed in ¶ 2-4*a*(1) and meets a high-risk condition* of ¶¶ 2-4*d*(1)-(4).	Exclude ¶ 2-5*a*(3) *(a)*	Restrict ¶ 2-5*a*(2) *(a)*
4. Asymptomatic, but stools positive for *S. typhi*, *Shigella* spp., or *E. coli* 0157:H7.	Exclude ¶ 2-5*a*(3)*(b)*	Restrict ¶ 2-5*a*(2) *(b)*
5. Past illness from *S. typhi* within the last 3 months.	Exclude ¶ 2-5*a*(3) *(c)*	No restrictions
6. Past illness from *Shigella* spp. or *E. coli* 0157:H7 within the last month.	Exclude ¶ 2-5*a*(3) *(d)*	No restrictions
7. Onset of jaundice.	Exclude ¶ 2-5*a*(4)	Exclude ¶ 2-5*a*(4)

*High-risk conditions apply only to exclusions under this paragraph.

Table 2-2. Removal of exclusions and restrictions for FOOD EMPLOYEES and applicants.

Health status ¶¶ 2-4 and 2-5	FOOD establishments serving HIGHLY SUSCEPTIBLE POPULATION ¶ 2-6	FOOD establishments not serving HIGHLY SUSCEPTIBLE POPULATION ¶ 2-6
1. Diagnosed with illness due to *S. typhi*, *Shigella* spp., *E. coli* 0157:H7, or hepatitis A virus or other disease transmissible through FOOD. (See ¶ 2-4*b*.).	1. Regulatory authority approval 2. Doctor: Stool free, or Blood free or symptom-free (See ¶ 2-6*a*(1).)	1. Regulatory authority approval 2. Doctor: Stool free, or Blood free or symptom-free (See ¶ 2-6*a*(2).)
2. Experiencing a symptom listed in ¶ 2-4*a*.	1. No illness results + no symptoms, or 2. Suspect cause of illness + no symptoms + Doctor: stool or blood free, or 3. Doctor: Noninfectious condition (See ¶ 2-6*a*(2).)	1. No illness results + no symptoms, or 2. Suspect cause of illness + no symptoms + Doctor: stool or blood free, or 3. Doctor: Noninfectious condition (See ¶ 2-6*a*(2).)
3. Experiencing a symptom listed in ¶ 2-4*a*(1) and meets a high-risk condition. (See ¶¶ 2-4*d*(1)-(4) and 2-5*a*(3) (a).)	Doctor: 1. Stools or blood free, or 2. No jaundice per ¶ 2-6*a*(4) 3. Noninfectious condition (See ¶ 2-6*a*(2).)	1. No illness results + no symptoms, or 2. Suspect cause of illness + no symptoms + Doctor: stool or blood free, or 3. Doctor: Noninfectious condition (See ¶ 2-6*a*(2).)
4. Asymptomatic, but stools positive for *S. typhi*, *Shigella* spp., or *E. coli* 0157:H7. (See ¶¶ 2-5*a*(2) *(b)* and (3) *(b)*.)	Doctor - stools free (See ¶ 2-6*a*(2) *(b)*.)	Doctor - stools free (See ¶ 2-6*a*(2) *(b)*.)
5. Past illness from *S. typhi* within the last 3 months. (See ¶¶ 2-4*c* and 2-5*a*(3) *(c)*.)	Doctor - stools free (See ¶ 2-6a(2) (*b*).)	NA
6. Past illness from *Shigella* spp., or *E. coli* 0157:H7 within last month. (See ¶¶ 2-4*c* and 2-5*a*(3) *(d)*.)	Doctor - stools free	NA
7. Onset of jaundice.	1. No illness results + Doctor - blood free, or Doctor - no jaundice, or 2. Suspect cause of illness + both satisfied (See ¶ 2-6*a*(4).)	1. No illness results + Doctor - blood free, or Doctor - no jaundice, or 2. Suspect cause of illness + both satisfied (See ¶ 2-6*a*(4).)

CHAPTER 3
FOOD

Section I. CHARACTERISTICS

3-1. Safe, Unadulterated, and Honestly Presented*

FOOD WILL be safe, UNADULTERATED, and, as specified in ¶ 3-62, honestly presented.

3-2. Served to Highly Susceptible Populations

Raw FOOD or FOOD cooked to less than the required internal temperatures WILL not be served to a HIGHLY SUSCEPTIBLE POPULATION.

Section II. SOURCES, SPECIFICATIONS, ORIGINAL CONTAINERS, AND RECORDS

3-3. Food Supplies*

a. FOOD WILL be obtained from approved sources that comply with AR 40-657/NAVSUPINST 4355.4F/MCO P10110.31G.

b. FOOD in a HERMETICALLY SEALED CONTAINER WILL be obtained from a FOOD PROCESSING PLANT that is regulated by the appropriate regulatory agency that has jurisdiction over the plant.

c. FOOD prepared in a private home may not be used or offered for human consumption in a FOOD ESTABLISHMENT. *This requirement does not apply to private/social functions (such as chapel suppers, family child care (FCC) homes, neighborhood cookouts, unit bake sales, or similar functions) provided the FOOD is identified as home-prepared FOOD on a sign or label.*

d. PACKAGED FOOD WILL be labeled as specified in LAW, including 21 CFR 101, 9 CFR 317, and 9 CFR 381, subpart N, and as specified in ¶¶ 3-8 and 3-9.

e. FISH, other than MOLLUSCAN SHELLFISH, that are intended for consumption in their raw form and allowed as specified in ¶ 3-42c(1) may be offered for sale or service if—

(1) *Obtained from a supplier that freezes the FISH as specified in ¶ 3-45; or*

(2) *FROZEN on the PREMISES and meet the requirements as specified in ¶ 3-45, and records are retained as specified in ¶ 3-46.*

3-4. Approved Source Compliance*

a. FOOD. FOOD WILL comply with AR 40-657/NAVSUPINST 4355.4F/MCO P10110.31G.

b. Wild mushrooms.

(1) Except as specified in ¶ (2) below, mushroom species picked in the wild WILL be obtained from sources where each mushroom is individually inspected and found to be safe by an APPROVED mushroom identification expert.

(2) ¶ (1) *Above does not apply to—*

(a) Cultivated wild mushroom species that are grown, harvested and processed in an operation that is regulated by the FOOD regulatory agency that has jurisdiction over the operation.

(b) Wild mushroom species if they are in PACKAGED form and are the product of a FOOD PROCESSING PLANT that is regulated by a Federal FOOD regulatory agency that has jurisdiction over the plant.

c. MEATS. MEATS WILL be obtained from establishments listed in USDA's *Meat and Poultry Inspection Directory.*

d. GAME ANIMALS.

(1) If GAME ANIMALS are received for sale or service, they WILL be—

(a) Commercially raised for FOOD and raised, slaughtered, and processed—

1. In a voluntary inspection program that is conducted by the agency that has animal health jurisdiction; or

2. In a routine inspection program conducted by a regulatory agency other than the agency that has animal health jurisdiction.

3. According to LAWS governing MEAT and POULTRY as determined by the agency that has animal health jurisdiction and the agency that conducts the inspection program, and

4. According to requirements which are developed by the agency that has animal health jurisdiction and the agency that conducts the inspection pro-

gram with consideration of factors, such as the need for antemortem and postmortem examination by an APPROVED veterinarian or veterinarian's designee.

(b) In a voluntary inspection program administered by the USDA for GAME ANIMALS, such as exotic animals (reindeer, elk, deer, antelope, water buffalo, or bison), that are "inspected and APPROVED" per 9 CFR 352 or rabbits that are "inspected and certified" per 9 CFR 354.

(c) As allowed by LAW, for wild GAME ANIMALS which are live-caught—

1. In a routine inspection program conducted by a regulatory agency, such as the agency that has animal health jurisdiction.

2. Slaughtered and processed according to—

• LAWS governing MEAT and POULTRY as determined by the agency that has animal health jurisdiction and the agency that conducts the inspection program, and

• Requirements which are developed by the agency that has animal health jurisdiction and the agency that conducts the inspection program with consideration of factors, such as the need for antemortem and postmortem examination by an APPROVED veterinarian or veterinarian's designee.

(d) As allowed by LAW, for field-dressed wild GAME ANIMALS in a routine inspection program that ensures the animals—

1. Receive a postmortem examination by an APPROVED veterinarian or veterinarian's designee, or

2. Are field-dressed and transported according to requirements specified by the agency that has animal health jurisdiction and the agency that conducts the inspection program, and

3. Are processed according to LAWS governing MEAT and POULTRY as determined by the agency that has animal health jurisdiction and the agency that conducts the inspection program.

(2) A GAME ANIMAL may not be received for sale or service if it is a species of wildlife that is listed in 50 CFR 17.

3-5. Temperature*

a. Except as specified in ¶ *b* below, refrigerated PHF WILL be at a temperature of 40 degrees Fahrenheit (°F) (4.4 degrees Celsius (°C)) or below when received.

b. If a temperature other than 40 °F (4.4 °C) for a PHF is specified in LAW governing its distribution (such as LAWS governing milk, MOLLUSCAN SHELLFISH, and shell eggs), the FOOD may be received at the specified temperature. However, FOOD WILL be cooled to 40 °F (4.4 °C) within 4 hours of receiving.

c. PHF that is cooked to a temperature and for a time specified in ¶¶ 3-42 through 3-43 and received hot WILL be at a temperature of 140 °F (60 °C) or above.

d. A FOOD that is labeled FROZEN and shipped FROZEN by a FOOD PROCESSING PLANT WILL be received FROZEN.

e. Upon receipt, PHF WILL be free of evidence of previous temperature abuse.

3-6. Additives*

FOOD may not contain—

a. UNAPPROVED FOOD ADDITIVES or ADDITIVES that exceed amounts specified in 21 CFR 170 through 21 CFR 180 relating to FOOD ADDITIVES GRAS.

b. Prior sanctioned substances that exceed amounts specified in 21 CFR 181, 21 CFR 182, 21 CFR 184, and 21 CFR 186.

c. Substances that exceed amounts specified in 9 CFR 318.7.

d. Pesticide residues that exceed provisions specified in 40 CFR 185.

3-7. Package Integrity*

FOOD packages WILL be in good condition and protect the integrity of the contents so that the FOOD is not exposed to ADULTERATION or potential contaminants. FOOD package defects WILL be classified per 7 CFR 42.

3-8. Shucked Shellfish, Packaging and Identification

RAW, SHUCKED SHELLFISH WILL be obtained in nonreturnable packages bearing a legible label that identifies the—

a. Name, address, and CERTIFICATION NUMBER of the shucker-packer or repacker of the MOLLUSCAN SHELLFISH; and

b. "Sell by" date for packages with a capacity of less than ½ gallon (1.87 liter (L)) or the date shucked for packages with a capacity of ½ gallon (1.87 L) or more.

3-9. Shellstock Identification*

a. SHELLSTOCK WILL be obtained in containers bearing legible source identification tags or labels that are affixed by the harvester and each dealer that depurates, ships, or reships the SHELLSTOCK, as specified in the FDA's *National Shellfish Sanitation Program Manual of Operations, Part II Sanitation of the Harvesting, Processing, and Distribution of Shellfish.*

(1) Except as specified in ¶ *c* below, the harvester's tag or label WILL list the following information in the following order:

(a) The harvester's identification number that is assigned by the SHELLFISH CONTROL AUTHORITY.

(b) The date of harvesting.

(c) The most precise identification of the harvest location or aquaculture site that is practicable based on the system of harvest area designations that is in use by the SHELLFISH CONTROL AUTHORITY, including the abbreviation of the name of the state or country in which the shellfish are harvested.

(d) The type and quantity of shellfish.

(e) The following statement in bold, capitalized type: **"THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS."**

(2) Except as specified in ¶ *c* below, each dealer's tag or label WILL list the following information in the following order:

(a) The dealer's name and address, and the CERTIFICATION NUMBER assigned by the SHELLFISH CONTROL AUTHORITY.

(b) The original shipper's CERTIFICATION NUMBER, including the abbreviation of the name of the state or country in which the shellfish are harvested.

(c) The same information as specified for a harvester's tag in ¶¶ (1)(*b*) through (*d*) above.

(d) The following statement in bold, capitalized type: **"THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER KEPT ON FILE FOR 90 DAYS."**

b. If a place is provided on the harvester's tag or label for a dealer's name, address, and CERTIFICATION NUMBER, the dealer's information WILL be listed first.

c. If the harvester's tag or label is designed to accommodate each dealer's identification as specified in ¶¶ a(2)(a) and (b) above, individual dealer tags or labels need not be provided.

3-10. Shellstock, Condition

When received by a FOOD ESTABLISHMENT, SHELLSTOCK WILL be reasonably free of mud, dead shellfish, and shellfish with broken shells. Dead shellfish or SHELLSTOCK with badly broken shells WILL be discarded.

3-11. Molluscan Shellfish, Original Container

a. Except as specified in ¶¶ *b* and c below, MOLLUSCAN SHELLFISH may not be removed from the container in which they are received other than immediately before sale or preparation for service.

b. SHELLSTOCK may be removed from the container in which they are received, displayed on drained ice, or held in a display container, and a quantity specified by a CONSUMER may be removed from the display or display container and provided to the CONSUMER if—

(1) The source of the SHELLSTOCK on display is identified as specified in ¶ 3-9 and recorded as specified in ¶ 3-12, and

(2) The SHELLSTOCK are protected from contamination.

c. SHUCKED SHELLFISH may be removed from the container in which they were received and held in a display container from which individual servings are dispensed upon a CONSUMER'S request if—

(1) The labeling information for the shellfish on display as specified in ¶ 3-9 is retained and correlated to the date when, or dates during which, the shellfish are sold or served; and

(2) The shellfish are protected from contamination.

3-12. Shellstock, Maintaining Identification*

a. Except as specified in ¶ *b* (2) below, SHELLSTOCK tags WILL remain attached to the container in which the SHELLSTOCK are received until the container is empty.

b. The identity of the source of SHELLSTOCK that are sold or served WILL be maintained by retaining SHELLSTOCK tags or labels for 90 calendar days from the date the container is emptied by—

(1) Using an APPROVED recordkeeping system that keeps the tags or labels in chronological order correlated to the date when, or dates during which, the SHELLSTOCK are sold or served; and

(2) If SHELLSTOCK are removed from their tagged or labeled container—

(a) Using only one tagged or labeled container at a time, or

(b) Using more than one tagged or labeled container at a time and obtaining approval from the local MEDICAL COMMANDER or designated representative based on an approved HACCP PLAN that—

1. Preserves source identification by using a recordkeeping system as specified in ¶ (1) above, and

2. Ensures that SHELLSTOCK from one tagged or labeled container are not commingled with SHELLSTOCK from another container before being ordered by the CONSUMER.

Section III. PROTECTION FROM CONTAMINATION AFTER RECEIVING

3-13. Preventing Contamination From Hands*

a. FOOD EMPLOYEES WILL wash their hands as specified in ¶ 2-8.

b. Except when washing fruits and vegetables as specified in ¶ 3-20 or when otherwise APPROVED, FOOD EMPLOYEES may not contact exposed, READY-TO-EAT FOOD with their bare hands and WILL use suitable UTENSILS (such as deli tissue, spatulas, tongs, SINGLE-USE gloves, or dispensing EQUIPMENT).

c. FOOD EMPLOYEES WILL minimize bare hand and arm contact with exposed FOOD that is not in a READY-TO-EAT form.

d. The local MEDICAL COMMANDER or designated representative can approve a waiver for FOOD ESTABLISHMENTS that show proof and demonstrate through their actions that their variance in procedures will not have a negative impact on FOOD safety and will protect public health.

3-14. Preventing Contamination When Tasting*

A FOOD EMPLOYEE—

a. May not use a UTENSIL more than once to taste FOOD that is to be sold or served.

b. WILL use a two-UTENSIL method for recipe tasting.

(1) Use one UTENSIL to remove the FOOD from the container and to place the FOOD in a clean, sanitary bowl or plate.

(2) Use a second UTENSIL to taste the FOOD.

c. WILL discard any unused portion of FOOD that was removed, and WILL clean and sanitize the UTENSILS and bowl or plate.

3-15. Preventing Contamination of Packaged and Unpackaged Food*

a. FOOD WILL be protected from cross contamination by—

(1) Separating raw animal FOODS, during storage, preparation, holding, and display, from—

(a) Raw READY-TO-EAT FOOD, including other raw animal FOOD (such as FISH for sushi or MOLLUSCAN SHELLFISH) or other raw READY-TO-EAT FOOD (such as vegetables).

(b) Cooked READY-TO-EAT FOOD.

(2) *Except when combined as ingredients,* separating types of raw animal FOODS (such as beef, FISH, lamb, pork) from each other, during storage, preparation, holding, and display by—

(a) Using separate EQUIPMENT for each type.

(b) Arranging raw PHF by cooking temperature, with those products requiring lower cooking temperatures at the top and those products requiring higher cooking temperatures at the bottom.

(c) Arranging each type of FOOD in EQUIPMENT so that cross contamination of one type with another is prevented, and preparing each type of FOOD at different times or in separate areas.

(d) Storing READY-TO-EAT FOOD and cooked FOODS either in separate refrigeration units or above raw PHFs.

(3) Cleaning and sanitizing EQUIPMENT and UTENSILS as specified in chapter 4.

(4) Except as specified in ¶ *b* below, storing the FOOD in packages, covered containers, or wrappings.

(5) Cleaning HERMETICALLY SEALED CONTAINERS of FOOD of visible soil before opening.

(6) Protecting FOOD containers that are received PACKAGED together in a case or overwrap from cuts when the case or overwrap is opened.

(7) Storing damaged, spoiled, or recalled FOOD (being held for credit, redemption, disposal, or return) in designated areas that are separated from FOOD, EQUIPMENT, UTENSILS, LINEN, and SINGLE-SERVICE and SINGLE-USE ARTICLES. *Identified suspected containers WILL be isolated and held for inspection by the veterinary services personnel or the MEDICAL COMMANDER or designated representative.*

(8) Separating fruits and vegetables, before they are washed as specified in ¶ 3-20, from READY-TO-EAT FOOD.

b. ¶ a(4) above does not apply to—

(1) *Whole, uncut, raw fruits and vegetables and nuts in the shell that require peeling or hulling before consumption.*

(2) *PRIMAL CUTS, quarters, or sides of raw MEAT or slab bacon that are hung on clean, SANITIZED hooks or placed on clean, SANITIZED racks.*

(3) *Whole, uncut, processed meats (such as country hams, and smoked or cured sausages) that are placed on clean, SANITIZED racks.*

(4) *FOOD being cooled as specified in ¶ 3-53b.*

(5) *SHELLSTOCK.*

3-16. Food Storage Containers, Identified With Common Name of Food

Working containers holding FOOD or FOOD ingredients that are removed from their original packages (such

as cooking oils, flour, herbs, potato flakes, salt, spices, and sugar) for use in the FOOD ESTABLISHMENT WILL be identified with the common name of the FOOD, *except that containers holding FOOD that can be readily and unmistakably recognized, such as dry pasta, need not be identified.*

3-17. Pasteurized Eggs, Substitute for Raw Shell Eggs for Certain Recipes*

Pasteurized eggs or egg products WILL be substituted for raw shell eggs in the preparation of FOODS (such as Caesar salad, hollandaise or béarnaise sauce, mayonnaise, eggnog, ice cream, and egg-fortified BEVERAGES) that are not—

a. Cooked as specified in ¶¶ 3-42*a*(1) or (2).

b. Included in ¶ 3-42*c*(1).

3-18. Pasteurized Dry Milk, Substitute for Fresh Milk for Certain Recipes

Pasteurized dry milk or reconstituted pasteurized milk products may be used as a substitute for fresh pasteurized milk in instant desserts, milk shakes, and whipped products, or for cooking and baking purposes.

3-19. Protection from Unapproved Additives*

a. FOOD WILL be protected from contamination that may result from the addition of, as specified in ¶ 3-6—

(1) Unsafe or UNAPPROVED FOOD or COLOR ADDITIVES.

(2) Unsafe or UNAPPROVED levels of APPROVED FOOD and COLOR ADDITIVES.

b. A FOOD EMPLOYEE may not—

(1) Apply sulfiting agents to fresh fruits and vegetables intended for raw consumption or to a FOOD considered to be a good source of vitamin B_1.

(2) Serve or sell FOOD specified in ¶ (1) above that is treated with sulfiting agents before receipt by the FOOD ESTABLISHMENT, *except that grapes need not meet this requirement.*

3-20. Washing Fruits and Vegetables

a. Before being cut, combined with other ingredients, cooked, served, or offered for human consumption in READY-TO-EAT form, raw fruits and vegetables WILL be—

(1) Thoroughly washed in water to remove soil and other contaminants.

(2) Completely immersed for 30 seconds in a 5-ppm free available chlorine (FAC) or 100-ppm total chlorine solution, or equivalent product APPROVED by the REGULATORY AUTHORITY. Leafy items WILL have core/hearts removed prior to immersion to facilitate thorough product exposure to chlorine.

(3) Rinsed in DRINKING WATER.

NOTE

Alternative sanitizing procedures can be used if they are scientifically sound and approved by the MEDICAL COMMANDER or designated representative. An acceptable FDA vegetable sanitizing solution can also be used.

b. Whole, raw fruits and vegetables that are intended for washing by the CONSUMER before consumption and commercially processed and PACKAGED vegetables in a READY-TO-EAT form need not be washed before they are sold.

c. In emergency feeding situations where fresh fruits and vegetables are grown in areas of "night soil" or SEWAGE used as fertilizer, the MEDICAL COMMANDER or designated representative may allow procurement and consumption if—

(1) Raw fruits and vegetables are thoroughly washed in DRINKING WATER and APPROVED detergent solution followed by a rinse with clean POTABLE WATER. All leafy vegetables are completely taken apart to expose entire FOOD surface to cleaning and disinfection.

(2) Raw fruits and vegetables are completely immersed in a minimum 200-ppm chlorine solution for 30 seconds or soaked in hot, 160 °F (72 °C) DRINKING WATER for 1 minute. *Chlorine solution is prepared by mixing 1 ounce of household liquid bleach (National Stock Number (NSN) 6910-00-598-7316, 5 percent sodium hypochlorite) in 2 gallons of cool DRINKING WATER. Food Service Disinfectant (NSN 6840-00-810-6396, Chlorine-Iodine Type) is APPROVED for washing and disinfecting fruits and vegetables.*

3-21. Ice Used as Exterior Coolant, Prohibited as Ingredient

Ice may not be used as FOOD after use as a medium for cooling the exterior surfaces of FOOD (such as melons or FISH), PACKAGED FOODS (such as canned BEVERAGES), or cooling coils and tubes of EQUIPMENT.

3-22. Storage or Display of Food in Contact With Water or Ice

a. PACKAGED FOOD may not be stored in direct contact with ice or water if the FOOD is subject to the entry of water because of the nature of its packaging, wrapping, or container or its positioning in the ice or water.

b. Except as specified in ¶¶ *c* and *d* below, UNPACKAGED FOOD may not be stored in direct contact with undrained ice.

c. Whole, raw fruits or vegetables; cut, raw veg-

etables (such as celery or carrot sticks or cut potatoes); and tofu may be immersed in ice or water.

d. Raw chicken and raw FISH that are received immersed in ice in shipping containers may remain in that condition while in storage awaiting preparation, display, service, or sale.

3-23. Ice Storage and Dispensing Protection

a. Ice intended for CONSUMER USE WILL be—

(1) Dispensed from self-service, automatic ice dispensing machines; or

(2) Placed in cleaned and sanitized self-draining container(s) and self-service dispensers where cleaned and sanitized scoops, tongs, or other ice-dispensing UTENSILS are used.

b. UTENSIL storage WILL be as specified in ¶ 3-25.

c. Glassware is prohibited for scooping ice.

3-24. Food Contact With Equipment and Utensils*

FOOD may not contact—

a. Probe-type price or identification tags.[P]

b. Surfaces of EQUIPMENT and UTENSILS that are not cleaned and SANITIZED as specified in this bulletin.

3-25. In-Use Utensils, Between-Use Storage

During pauses in FOOD preparation or dispensing, FOOD preparation and dispensing UTENSILS WILL be stored—

a. In the FOOD with their handles above the top of the FOOD and the container.

b. In FOOD that is not POTENTIALLY HAZARDOUS with their handles above the top of the FOOD within containers or EQUIPMENT that can be closed, such as bins of sugar, flour, or cinnamon.

c. On a clean portion of the FOOD preparation table or cooking EQUIPMENT, and WILL be cleaned and SANITIZED at a frequency as specified in this bulletin.

d. In running water of sufficient velocity to flush particulates to the drain if used with moist FOOD, such as ice cream or mashed potatoes.

e. In a clean, protected location if the UTENSILS, such as ice scoops, are used only with a FOOD that is not POTENTIALLY HAZARDOUS.

3-26. Linens and Napkins, Use Limitation

LINENS and napkins may not be used in contact with FOOD, *unless they are used to line a container for the service of FOODS and are replaced each time the container is refilled for a new CONSUMER.*

3-27. Preventing Contamination From Wiping Cloths

a. Cloths that are used for wiping FOOD spills on TABLEWARE (such as plates, bowls, or carry-out containers served to the CONSUMERS) WILL be clean and dry, and the cloths WILL not be used for any other purpose.

b. Cloths used for wiping FOOD spills WILL be moist and cleaned as required, stored in a chemical sanitizer solution equal to 100-ppm chlorine (5-ppm FAC), and used for wiping spills from FOOD-CONTACT and nonFOOD-CONTACT SURFACES of EQUIPMENT.

c. Dry or moist cloths that are used with raw animal FOODS WILL be kept separate from cloths used for other purposes. Moist cloths used with raw animal FOODS WILL be kept in a separate sanitizing solution.

3-28. Gloves, Use Limitation

a. If used, SINGLE-USE gloves WILL be used for only one task, such as working with READY-TO-EAT FOOD or with raw animal FOOD; used for no other purpose; and discarded when damaged or soiled or when interruptions occur in the operation.

b. Except as specified in ¶ *c* below, slash-resistant gloves that are used to protect the hands during operations requiring cutting WILL be used in direct contact only with FOOD, such as frozen FOOD or a PRIMAL CUT of MEAT, that is subsequently cooked as specified in section IV below.

c. Slash-resistant gloves may be used with READY-TO-EAT FOOD that WILL not be subsequently cooked if the gloves—

(1) Have a SMOOTH, durable, and nonabsorbent outer surface; or

(2) Are covered with a SMOOTH, durable, nonabsorbent glove or a SINGLE-USE glove.

d. Cloth gloves—

(1) May not be used in direct contact with FOOD, *such as frozen FOOD or a PRIMAL CUT of MEAT, unless the FOOD is subsequently cooked as required in section IV below.*

(2) WILL be washed and sanitized at least daily.

(3) WILL be changed when there is an interruption in the operation or when they become damaged or soiled.

3-29. Using Clean Tableware for Second Portions and Refills

a. FOOD EMPLOYEES may not use TABLEWARE, including SINGLE-SERVICE ARTICLES, soiled by the CONSUMER to provide second portions or refills.

b. Self-service CONSUMERS may not be allowed to use soiled TABLEWARE, including SINGLE-SERVICE ARTICLES, to

obtain additional FOOD from the display and serving EQUIPMENT. However, self-service CONSUMERS may reuse cups and glasses if refilling is a contamination-free process. A sign similar to the one shown in figure 3-1 (located at the end of this chapter) WILL be posted to inform the CONSUMER of this requirement.

3-30. Refilling Returnables

a. A take-home FOOD container returned to a FOOD ESTABLISHMENT may not be refilled with a PHF at a FOOD ESTABLISHMENT.

b. Except as specified in ¶*c* below, a take-home FOOD container refilled with FOOD that is not POTENTIALLY HAZARDOUS WILL be cleaned as specified in this bulletin.

c. Personal take-out BEVERAGE containers (such as thermally insulated bottles, nonspill coffee cups, and promotional BEVERAGE glasses) may be refilled by EMPLOYEES or the CONSUMER if refilling is a contamination-free process.

d. EMPLOYEES WILL wash their hands before handling FOOD or other UTENSILS.

3-31. Protection of Food During Storage

a. FOOD WILL be protected from contamination by storing the FOOD—

(1) In a clean, dry location.

(2) Where it is not exposed to splash, dust, or other contamination.

(3) At least 6 inches (in) (15 centimeters (cm)) above the floor.

b. FOOD in packages and working containers may be stored less than 6 in (15 cm) above the floor on case lot handling EQUIPMENT as specified in ¶4-30.

c. Pressurized BEVERAGE containers; cased FOOD in waterproof containers, such as bottles or cans; and milk containers in plastic crates may be stored on a floor that is clean and not exposed to floor moisture (mop water, spills, condensation, etc.).

d. Wooden pallets should not be used. Wooden pallets may currently be used if they are in good repair and are cleaned on a regular basis. However, use of wooden pallets in FOOD ESTABLISHMENTS WILL be prohibited 2 years after the publication date of this TB MED. (Field feeding is exempt.)

3-32. Food Storage, Prohibited Areas

FOOD may not be stored—

a. In locker rooms.

b. In toilet rooms.

c. In dressing rooms.

d. In garbage rooms.

e. In mechanical rooms.

f. Under sewer lines that are not shielded to intercept potential drips.

g. Under leaking water lines, including leaking automatic fire sprinkler heads, or under lines on which water has condensed.

h. Under open stairwells.

i. Under other sources of contamination.

3-33. Vended PHF, Original Container

PHF dispensed through a VENDING MACHINE WILL be in the package in which it was placed at the FOOD ESTABLISHMENT or FOOD PROCESSING PLANT at which it was prepared.

3-34. Food Preparation

During preparation, UNPACKAGED FOOD WILL be protected from environmental sources of contamination.

3-35. Food Display

Except for nuts in the shell and whole, raw fruits and vegetables that are intended for hulling, peeling, or washing by the CONSUMER before consumption, FOOD on display WILL be protected from contamination by the use of packaging; counter, service line, or salad bar FOOD guards (sneeze guards); display cases; or other effective means.

3-36. Condiments, Protection

a. Condiments WILL be protected from contamination by being kept in either—

(1) Dispensers that are designed to provide protection,

(2) Protected FOOD displays provided with the proper UTENSILS,

(3) Original containers designed for dispensing, or

(4) Individual packages or portions.

b. Condiments at a VENDING MACHINE LOCATION WILL be in individual packages or provided in dispensers that are filled at an APPROVED location, such as—

(1) The FOOD ESTABLISHMENT that provides FOOD to the VENDING MACHINE LOCATION,

(2) A FOOD PROCESSING PLANT that is regulated by the agency that has jurisdiction over the operation, or

(3) A properly equipped facility that is located on the site of the VENDING MACHINE LOCATION.

c. Condiments may be made available from condiment self-service dispensing EQUIPMENT at those locations having an on-duty attendant. Use of relish bowls and other similar non-self-closing condiment containers is prohibited.

3-37. Consumer Self-Service Operations*

a. Raw, UNPACKAGED animal FOOD (such as beef, lamb, pork, POULTRY, and FISH) may not be offered for CONSUMER self-service. *This paragraph does not apply to CONSUMER self-service of—*

(1) *READY-TO-EAT FOOD at buffets or salad bars that serve FOODS such as sushi or raw shellfish.*

(2) *Ready-to-cook individual portions for immediate cooking on the EQUIPMENT and consumption, such as CONSUMER-cooked MEATS or CONSUMER-selected ingredients for Mongolian barbecue.*

b. CONSUMER self-service operations for READY-TO-EAT FOODS WILL be provided with suitable UTENSILS or effective dispensing methods that protect the FOOD from contamination. UTENSILS and FOOD containers should be labeled with the corresponding name of the FOOD.[N]

c. CONSUMER self-service operations, such as buffets, salad bars, and "cook your own," WILL be monitored by FOOD EMPLOYEES trained in safe operating procedures.[N]

d. With the exception of carry-out or á la carte operations, customers WILL be prohibited from taking any PHF home (doggy bagged) from buffet or other customer self-service operations. *However, prepared PHF not placed on serving lines and maintained as LEFTOVERS may be offered for take home. The PERSON-IN-CHARGE SHOULD provide appropriate FOOD handling safety directions with the take-home product (for example, Keep refrigerated, heat thoroughly before serving).*[N]

3-38. Returned Food, Reservice or Sale*

a. After being served or sold and in the possession of a CONSUMER, FOOD that is unused or returned by the CONSUMER may not be offered as FOOD for human consumption.

b. FOOD that is not POTENTIALLY HAZARDOUS, such as crackers and condiments, in an unopened original package and maintained in sound condition may be reserved or resold.

3-39. Dispensing of Milk, Cream, and Nondairy Products

a. Milk and milk products for drinking purposes WILL be provided to the CONSUMER—

(1) In an unopened, commercially filled package not exceeding 1 pint or 16 fluid ounces (.473 L) in capacity.

(2) Drawn for immediate consumption from a commercially filled container stored in a mechanically refrigerated bulk milk dispenser.

b. If a bulk dispenser for milk or milk products is not available and portions of less than 1/2 pint are required for mixed drinks, cereal, dessert service, or in a glass for drinking, milk and milk products may be poured from a commercially filled plastic container of 1-gallon (3.785 L) capacity and the filled plastic container returned immediately to the refrigerated storage.

c. Cream or half-and-half WILL be provided in an individual service container or a protected dispenser that pours, or it WILL be drawn from a refrigerated dispenser designed for such service. When dispensers that pour are emptied, they WILL be washed and sanitized before reuse (refilling).

d. Liquid nondairy creamer or whitening agents WILL be provided in an individual service container that WILL be at or below 40 °F (4.4 °C) during storage, display, or service.

e. An exception is granted for child development services. Milk or milk products may be transferred from bulk milk dispensers or commercial 1-gallon (3.785 L) containers or smaller into a small, cleaned and sanitized serving pitcher. Pitchers WILL be covered and transported immediately to the child activity rooms. All milk remaining in the serving pitchers after the meal or snack WILL be discarded. Serving pitchers WILL not be used as storage containers.

3-40. Dispensing of Cereal and Breads

a. Breakfast cereals may be dispensed in individual serving PACKAGES, in 12- to 16-ounce PACKAGES, or in protected bulk cereal bowls. Proper UTENSILS WILL be provided for CONSUMER self-service. Any cereal remaining in the bulk cereal bowls after the serving period WILL be discarded.

b. Bread and bread rolls may be dispensed in individual serving PACKAGES, bulk dispensers, or in pans or bowls protected by use of FOOD guards, display cases, or other effective means. Proper UTENSILS WILL be provided for CONSUMER self-service. Any bread or bread rolls remaining in the pans or bowls after the serving period WILL be discarded.

3-41. Protecting from Miscellaneous Sources of Contamination

FOOD WILL be protected from contamination that may result from a factor or source not specified in ¶¶ 3-13 through 3-40.

Section IV. DESTRUCTION OF ORGANISMS OF PUBLIC HEALTH CONCERN

3-42. Cooking Raw Animal Foods*

a. Raw animal FOODS, such as eggs, FISH, MEAT, POULTRY, and FOODS containing these raw animal FOODS WILL be cooked to heat all parts of the FOOD to the following minimum requirements for temperature and time:

(1) A temperature of 145 °F (63 °C) or above for 15 seconds for raw shell eggs that are broken and prepared for immediate service in response to a CONSUMER'S order, and for FISH, seafood, beef, veal, lamb, mutton, and commercially raised GAME ANIMALS as specified in ¶¶ 3-4*d*(1) and (2).

(2) A temperature of 155 °F (68 °C) for 15 seconds or the temperature specified in table 3-1 (located at the end of this chapter) that corresponds to the cooking time and temperature for pork and exotic species of GAME ANIMALS, COMMINUTED FISH, meats and GAME ANIMALS, INJECTED meats, and eggs that are not prepared for immediate service to a CONSUMER.

(3) A temperature of 165°F (74 °C) or above for 15 seconds for POULTRY; wild GAME ANIMALS as specified in ¶¶ 3-4*d*(1) and (2); stuffed FISH; stuffed MEAT; stuffed pasta; or stuffing containing FISH, MEAT, POULTRY, or RATITES. POULTRY and RATITES WILL not be stuffed. Stuffing and dressing WILL be cooked separately. Stuffing containing FISH, meat, POULTRY, or RATITES WILL be cooked to the minimum temperature for the ingredient requiring the highest cooking temperature.

b. Whole beef roasts and corned beef roasts WILL be cooked—

(1) In an oven that is preheated to the temperature specified for the roast's weight in table 3-2 (located at the end of this chapter) and that is held at or above that temperature.

(2) To heat all parts of the FOOD to a FOOD temperature specified in table 3-3 (located at the end of this chapter) that corresponds to the holding time and temperature.

c. ¶¶ a and b above do not apply if—

(1) *Except for FOOD ESTABLISHMENTS serving a HIGHLY SUSCEPTIBLE POPULATION, the FOOD is a raw animal FOOD (such as raw egg, raw FISH, raw-marinated FISH, raw MOLLUSCAN SHELLFISH, or steak tartare) or a partially cooked FOOD (such as lightly cooked FISH, rare MEAT, and soft cooked eggs) that is served or offered for sale in a READY-TO-EAT form, and the CONSUMER is informed, as specified in ¶ 3-65, and*

(2) *The REGULATORY AUTHORITY grants a variance based on an HACCP PLAN that is submitted by the PERMIT HOLDER and APPROVED that documents scientific data or other information showing that a lesser time and temperature regimen results in a safe FOOD.*

3-43. Microwave Cooking*

Raw animal FOODS cooked in a microwave oven WILL be—

a. Rotated or stirred throughout or midway during cooking to compensate for uneven distribution of heat.

b. Covered to retain surface moisture.

c. Heated to a temperature of at least 165 °F (74 °C) in all parts of the FOOD.

d. Allowed to stand covered for 2 minutes after cooking to obtain temperature equilibrium.

3-44. Plant Food Cooking for Hot Holding

Fruits and vegetables that are cooked for hot holding WILL be cooked to a temperature of 140 °F (60 °C).

3-45. Parasite Destruction*

a. Before service or sale in READY-TO-EAT form, raw, raw-marinated, partially cooked, or marinated-partially cooked FISH other than MOLLUSCAN SHELLFISH WILL be FROZEN throughout to a temperature of—

(1) –4 °F (–20 °C) or below for 168 hours (7 days) in a freezer; or

(2) –31 °F (–35 °C) or below for 15 hours in a blast freezer.

b. The following FISH species of tuna may be served or sold in a raw, raw-marinated, or partially cooked READY-TO-EAT form and are exempt from the above freezing requirements: Thunnus alalunga, Thunnus albacares (Yellowfin tuna), Thunnus atlanticus, Thunnus maccoyii (Bluefin tuna, Southern), Thunnus obesus (Bigeye tuna), or Thunnus thynnus (Bluefin tuna, Northern).

3-46. Records, Creation and Retention

a. Except as specified in ¶ 3-45*b* and ¶ *c* below, if raw, raw-marinated, partially cooked, or marinated-partially cooked FISH are served or sold in READY-TO-EAT form, the PERSON-IN-CHARGE WILL—

(1) Record the freezing temperature and time to which the FISH are subjected to that temperature, and

(2) Retain the records at the FOOD ESTABLISHMENT for 90 calendar days beyond the time of service or sale of the FISH.

b. Army FOOD ESTABLISHMENTS that freeze raw FISH

for parasite destruction WILL submit and obtain approval from the MEDICAL COMMANDER or designated representative prior to operation. FOOD ESTABLISHMENTS WILL be APPROVED by the MEDICAL COMMANDER or designated representative to serve or sell these FISH species.

c. If the FISH are FROZEN by a supplier, a written agreement or statement from the supplier stipulating that the FISH supplied are FROZEN to a temperature and for a time specified in ¶ 3-45 may substitute for the records specified in ¶ a above.

3-47. Reheating for Immediate Service

Cooked and refrigerated FOOD that is prepared for immediate service in response to an individual CONSUMER order, such as a roast beef sandwich au jus, may be served at any temperature.

3-48. Reheating for Hot Holding*

a. PHF that is cooked, cooled, and reheated for hot holding WILL be reheated so that all parts of the FOOD reach a temperature of at least 165 °F (74 °C) for 15 seconds.

b. PHF reheated in a microwave oven for hot holding WILL be reheated so that all parts of the FOOD reach a temperature of at least 165 °F (74 °C) and the FOOD WILL be rotated or stirred, covered, and allowed to stand covered for 2 minutes after reheating as specified in ¶3-43.

c. READY-TO-EAT FOOD taken from a commercially processed, HERMETICALLY SEALED CONTAINER or from an intact package from an APPROVED FOOD PROCESSING PLANT WILL be heated to a temperature of at least 140 °F (60 °C) for hot holding.

d. Reheating for hot holding WILL be done rapidly, and the time the FOOD is between the temperatures of 40 °F (4.4 °C) or less and 165 °F (74 °C) may not exceed 2 hours.

e. Remaining unsliced portions of roasts of beef that are cooked as specified in ¶ 3-42b may be reheated for hot holding using the oven parameters and minimum time and temperature conditions specified in ¶3-42b.

Section V. LIMITATION OF GROWTH OF ORGANISMS OF PUBLIC HEALTH CONCERN

3-49. Frozen Food

Stored FROZEN FOODS WILL be maintained FROZEN.

3-50. PHF, Slacking

FROZEN PHF that is slacked to moderate the temperature WILL be held—

a. In refrigeration that maintains the FOOD temperature at 40 °F (4.4 °C) or below, or

b. At any temperature if the FOOD remains FROZEN.

3-51. Thawing

PHF WILL be thawed in one of the following manners (listed in order of preference — from most to least desirable):

a. In refrigeration that maintains the FOOD temperature at 40 °F (4.4 °C) or less.

b. As part of a cooking process, if the FOOD that is FROZEN is cooked as specified in ¶¶ 3-42*a* or *b* or ¶ 3-43; or thawed in a microwave oven and immediately transferred to conventional cooking EQUIPMENT with no interruption in the process.

c. Completely submerged in running water—

(1) At a water temperature of 70 °F (21 °C) or below, with sufficient water velocity to agitate and float off loose particles in an overflow, for a period of time that does not allow thawed portions of READY-TO-EAT FOOD to rise above 40 °F (4.4 °C), or

(2) For a period of time that does not allow thawed portions of a raw animal FOOD requiring cooking to be above 40 °F (4.4 °C) for more than 4 hours, including the time the FOOD is exposed to the running water and the time needed for preparation for cooking, or the time it takes in refrigeration to lower the FOOD temperature to 40 °F (4.4 °C).

d. Using any procedure if a portion of FROZEN READY-TO-EAT FOOD is thawed and prepared for immediate service in response to an individual CONSUMER'S order.

3-52. Cooling*

a. Cooked PHF WILL be cooled—

(1) Within 2 hours, from 140 °F (60 °C) to 70 °F (21 °C); and

(2) Within 4 hours, from 70 °F (21 °C) to 40 °F (4.4 °C) or less.

b. PHF WILL be cooled within 4 hours to 40 °F (4.4 °C) or less if prepared from ingredients at ambient temperature, such as reconstituted FOODS and canned tuna.

c. Fluid milk and milk products and molluscan SHELLSTOCK received in compliance with LAWS allowing a temperature above 40 °F (4.4 °C) during shipment from the supplier, as specified in ¶ 3-5*b*, WILL be cooled within 4 hours to 40 °F (4.4 °C) or less.

d. Shell eggs need not comply with ¶c above, if the eggs are placed immediately upon their receipt in refrigerated EQUIPMENT that is capable of maintaining FOOD at 40 °F (4.4 °C) or less.

3-53. Cooling Methods

a. Cooling WILL be accomplished in accordance with the time and temperature criteria specified in ¶ 3-52 by using one or more of the following methods (or other effective methods) based on the type of FOOD being cooled:

(1) Placing the FOOD in SHALLOW pans.

(2) Separating the FOOD into smaller or thinner portions.

(3) Using rapid cooling EQUIPMENT.

(4) Stirring the FOOD in a container placed in an ice water bath.

(5) Using containers that facilitate heat transfer.

(6) Adding ice as an ingredient.

b. When placed in cooling or cold-holding EQUIPMENT, FOOD containers in which FOOD is being cooled WILL be arranged in the EQUIPMENT to provide maximum heat transfer through the container walls. However, FOOD may be loosely covered or uncovered if protected from overhead contamination during the cooling period to facilitate heat transfer from the surface of the FOOD.

c. A cooling log or chart WILL be maintained during the cooling period to record the time and temperature of FOOD being cooled.

3-54. PHF, Hot and Cold Holding or Display*

Sufficient hot or cold FOOD holding facilities WILL be provided to assure the maintenance of PHF at the required temperature during hot or cold holding. Except during preparation, cooking, or cooling, or when time is used as the public health control as specified in ¶ 3-58, all PHF WILL be maintained—

a. At 140 °F (60 °C) or above, *except that roasts cooked to a temperature and for a time specified in ¶ 3-42b or reheated as specified in ¶ 3-48e may be held at a temperature of 130 °F (54 °C) or above;* or

b. At 40 °F (4.4 °C) or less.

3-55. Ready-to-Eat, PHF, Date Marking and Disposition*

Labeling READY-TO-EAT, PHF as specified in this paragraph WILL be accomplished with a DA Label 177 (Prepared Food) (see fig 3-2, located at the end of this chapter) or any other system APPROVED by the MEDICAL COMMANDER or designated representative. This paragraph applies also to sandwiches as specified in ¶ 3-56. The intent of proper handling as specified in this paragraph does not address quality issues associated with FOOD that is FROZEN which are not health risks (such as buildup of ice crystals, rupturing of cell walls due to freezing, or separation of components).

a. Refrigerated, READY-TO-EAT, PHF prepared and held refrigerated in a FOOD ESTABLISHMENT WILL be clearly marked at the time of preparation to indicate—

(1) The date of FOOD ESTABLISHMENT preparation or the date of opening for FOOD prepared and PACKAGED by a FOOD PROCESSING PLANT; and

(2) The date of consumption which is 7 calendar days or less from, and including, the date of preparation or date the original container is opened, if the FOOD is maintained at 40 °F (4.4 °C) or less. FOOD not consumed within this time period WILL be discarded.

b. READY-TO-EAT, PHF prepared in a FOOD ESTABLISHMENT, or prepared and PACKAGED by a FOOD PROCESSING PLANT, and subsequently FROZEN WILL be used within 45 days or within manufacturer's recommended shelflife, if maintained below 0 °F. These items WILL be clearly marked with the date when the FOOD is placed in the refrigerator for tempering, to indicate that the FOOD WILL be consumed within 7 days.

c. Refrigerated, READY-TO-EAT, PHF dispensed from an opened container PACKAGED by a FOOD PROCESSING PLANT as specified in ¶¶ *a* and *b* above WILL be held no longer than 48 hours after dispensing, if the FOOD is maintained at 40 °F (4.4 °C) or less. Food not consumed within this time period WILL be discarded. *Examples of dispensed items include delicatessen-type salads (for example, macaroni and potato salads, puddings, and jellos), removed from the primary package and placed in serving pans or secondary containers for sale.*

d. ¶¶ a through c above do not apply to individual meal portions served or REPACKAGED for sale from a bulk container upon a CONSUMER'S request.

e. ¶¶ a and b above do not apply to whole, unsliced portions of a cured and processed product with original casing maintained on the remaining portion, such as bologna, salami, or other sausage in a cellulose casing that are FOOD prepared and PACKAGED by a FOOD PROCESSING PLANT.

f. The MEDICAL COMMANDER or designated representative for FOOD ESTABLISHMENTS with EQUIPMENT that cannot meet a 40 °F (4.4 °C) product temperature may grant a waiver and allow PHFs to be held at 45 °F (7 °C) with a maximum shelf life of 72 hours.

3-56. Sandwiches, Date Marking*

Sandwiches are classified as either MADE-TO-ORDER or PRE-PREPARED. Regardless of their classification, all temperature and time control parameters set forth in this chapter apply. *Labeling READY-TO-EAT, PHF as specified in this paragraph WILL be accomplished with a DA Label 177 (see fig 3-2, located at the end of this chapter) or any other system APPROVED by the MEDICAL COMMANDER or designated representative.*

a. MADE-TO-ORDER sandwiches are sandwiches prepared for immediate service in response to a CONSUMER'S order. In mass feeding situations, MADE-TO-ORDER sandwiches may be batch prepared no more than 1 hour prior to service provided that—

(1) Sandwiches are individually wrapped or protected from contamination specified in section III of this chapter; and

(2) Individual sandwich wrappers or storage containers are clearly marked with the date and time of preparation; and

(3) Individual sandwiches not consumed within 3 hours from the point of preparation WILL be discarded. *MADE-TO-ORDER sandwiches WILL not be retained as LEFTOVERS.*

b. PRE-PREPARED sandwiches are sandwiches prepared for service beyond a specific meal. These types of sandwiches WILL be individually wrapped and clearly marked with the date and time of preparation. Each carton, case, or box of sandwiches WILL be labeled with the producer's or manufacturer's name, plant number (when applicable), address, and any other information required by law. PRE-PREPARED sandwiches include the following types:

(1) *Hot sandwiches.* The potentially hazardous ingredients WILL be cooked to the required internal temperature and held at 140 °F, from preparation to serving or disposal. Maximum shelf life for these sandwiches is 5 hours. Hot sandwiches not consumed within 5 hours WILL be discarded as FOOD waste.

(2) *Frozen sandwiches.*

(a) Frozen sandwiches produced at a FOOD PROCESSING PLANT WILL be consumed by the manufacturer's stated shelf life.

(b) The MEDICAL COMMANDER or designated representative WILL establish the shelf life for frozen sandwiches prepared at a FOOD ESTABLISHMENT.

(c) Frozen sandwiches may either be sold frozen or thawed using one of the methods in ¶ 3-51.

(d) When removed from freezer, frozen sandwiches WILL be dated with a use by date as follows:

1. Frozen sandwiches produced in a FOOD PROCESSING PLANT WILL be used by the manufacturer's stated shelf life or 7 days, whichever is less, or

2. Frozen sandwiches prepared in a FOOD ESTABLISHMENT WILL be consumed within 7 calendar days or less from the date taken from frozen storage.

(e) Thawed sandwiches WILL not be refrozen.

(3) *Refrigerated sandwiches.* Refrigerated sandwiches SHOULD be prepared from chilled ingredients. Refrigerated sandwiches SHOULD be prepared in a designated sandwich preparation facility.

(a) Refrigerated sandwiches prepared at a FOOD PROCESSING PLANT WILL be consumed within the manufacturer's stated shelf life.

(b) The MEDICAL COMMANDER or designated representative WILL establish a shelf life of at least 60 hours for refrigerated sandwiches prepared at a local FOOD ESTABLISHMENT having a designated sandwich preparation area. A designated sandwich preparation area includes:

1. A physical separation from other FOOD operations.

2. A trained staff.

3. Adequate designated handwashing facilities.

4. Wearing of disposable gloves.

5. A cleaning and sanitizing program that includes thorough cleaning and sanitizing of equipment before the start of sandwich preparation, after at least every 4 hours of continuous operation, and after any stoppage of sandwich preparation that exceeds 30 minutes. Special emphasis WILL be placed on thorough cleaning and sanitizing of all equipment, floors, walls, and refrigeration; and thorough air-drying of equipment. Any equipment that cannot be air-dried WILL be dried with a clean disposable paper towel.

(c) Sandwiches prepared at FOOD ESTABLISHMENTS that do not have a designated sandwich preparation area (for example, sandwich shops and military dining facilities) WILL be consumed within 4 hours of preparation.

c. Sandwiches not consumed within the time periods specified in ¶¶ *b*(1) through (3) above WILL be discarded as FOOD waste. Sandwiches WILL not be reworked.

d. Meat, chicken, tuna FISH, eggs, and other similar high-protein salad fillings used in PRE-PREPARED sandwiches WILL be commercially acidified to a pH of 4.5 or below. The sandwich or ingredient FOOD PROCESSING PLANT WILL provide written laboratory results or certificate of conformance stating that ingredients comply with acidification requirements.

3-57. Leftover Disposition*

LEFTOVERS prepared and held at temperatures as specified in ¶ 3-54 and properly protected against contamination as specified in section III of this chapter may be retained and offered for reservice or consumption. *LEFTOVERS WILL be labeled as specified in this paragraph with a DA Label 178 (Leftovers – Use Within 24 Hours) (see fig 3-3, located at the end of this chapter) or any other system APPROVED by the MEDICAL COMMANDER or designated representative.*

a. LEFTOVERS may be retained—

(1) 5 hours or less if maintained at 140 °F (60 °C) after initial cooking.

(2) 24 hours or less at 40 °F (4.4 °C) or less if rapidly cooled from 140 °F (60 °C) to 70 °F (21 °C) within 2 hours and from 70 °F (21 °C) to 40 °F (4.4 °C) or less within 4 hours as specified in ¶ 3-52.

(3) 4 hours or less if refrigerated LEFTOVERS are reheated as specified in ¶ 3-48 and consumed within 4 hours from the time of reheating.

b. LEFTOVERS not consumed within time periods or exceeding temperature and time requirements as specified in ¶¶ a(1) through (3) above WILL be discarded.

c. LEFTOVERS may be offered for service once, and remaining FOOD not consumed within the above time periods WILL be discarded.

d. The following FOOD WILL not be retained or offered as LEFTOVERS:

(1) FOOD that has been creamed or received extensive handling and preparation (for example, hashes, gravies, stuffings, dressings, and creamed meats).

(2) Raw or partially cooked PHFs.

(3) FOOD prepared for consumption by a HIGHLY SUSCEPTIBLE POPULATION.

(4) Unused or returned FOOD as specified in ¶ 3-38.

e. LEFTOVERS WILL not be FROZEN or mixed with fresh ingredients.

3-58. Time as a Public Health Control*

Time only, rather than time in conjunction with temperature, may be used as the public health control for a working supply of PHF before cooking or for READY-TO-EAT PHF that is displayed or held for service for immediate consumption if the following requirements are met:

a. The FOOD WILL be marked or otherwise identified to indicate the time that is 4 hours past the point in time when the FOOD is removed from temperature control.

b. The FOOD WILL be cooked and served, served if READY-TO-EAT, or discarded, within 4 hours from the point in time when the FOOD is removed from temperature control.

c. The FOOD in unmarked containers or packages or marked to exceed a 4-hour limit WILL be discarded.

d. Written procedures that ensure compliance with ¶¶ *a* through *c* above and ¶ 3-52 for FOOD that is prepared, cooked, and refrigerated before time is used as a public health control are maintained in the FOOD ESTABLISHMENT and made available to the REGULATORY AUTHORITY upon request.

3-59. Variance Requirement*

A FOOD ESTABLISHMENT WILL obtain a variance approval from the REGULATORY AUTHORITY before—

a. Smoking or curing FOOD.

b. Brewing alcoholic BEVERAGES.

c. Using FOOD ADDITIVES or adding components, such as vinegar, as a method of FOOD preservation rather than as a method of flavor enhancement or to render a FOOD so that it is not POTENTIALLY HAZARDOUS.

d. Using a REDUCED OXYGEN method of packaging FOOD, *except as specified in ¶ 3-60 where a barrier to Clostridium botulinum in addition to refrigeration exists.*

e. Preparing FOOD by another method that is determined by the REGULATORY AUTHORITY to require a variance.

3-60. Reduced Oxygen Packaging Criteria*

a. A FOOD ESTABLISHMENT that packages FOOD using a REDUCED OXYGEN PACKAGING method WILL have an HACCP PLAN APPROVED by the MEDICAL COMMANDER or designated representative that contains information that—

(1) Identifies the FOOD to be PACKAGED;

(2) Limits the FOOD PACKAGED to a FOOD that does not support the growth of *Clostridium botulinum* because it complies with one of the following:

(*a*) Has an a_w of 0.91 or less.

(*b*) Has a pH of 4.5 or less.

(*c*) Is a MEAT or POULTRY product cured at a FOOD PROCESSING PLANT regulated by the USDA using substances specified in 9 CFR 318.7 and 9 CFR 381.147 and is received in an intact package, or

(*d*) Is a FOOD with a high level of competing organisms, such as raw MEAT or raw POULTRY.

(3) Specifies methods for maintaining FOOD at 40 °F (4.4 °C) or below.

(4) Describes how the packages WILL be prominently and conspicuously labeled on the principal display panel in bold type on a contrasting background, with instructions to —

(*a*) Maintain the FOOD at 40 °F (4.4 °C) or below, and

(*b*) Discard the FOOD within 14 days or by the manufacturer's "use by" date, whichever is shorter.

(5) Limits the shelf life to no more than 14 calendar days from packaging to consumption or the original manufacturer's "sell by" or "use by" date, whichever occurs first.

(6) Includes operational procedures that—

(*a*) Prohibit contacting FOOD with bare hands.

(*b*) Identify a designated area and the method by which—

1. Physical barriers or methods of separation of raw FOODS and READY-TO-EAT FOODS minimize cross contamination, and

2. Access to the processing EQUIPMENT is restricted to responsible trained personnel familiar with the potential HAZARDS of the operation.

(*c*) Delineate cleaning and SANITIZATION procedures for FOOD-CONTACT SURFACES.

(7) Describes the training program that ensures that the individual responsible for the REDUCED OXYGEN PACKAGING operation understands the—

(*a*) Concepts required for a safe operation.

(*b*) EQUIPMENT and facilities.

(*c*) Procedures specified in ¶ (6) above.

Section VI. FOOD IDENTITY, PRESENTATION, AND ON-PREMISES LABELING

b. Except for FISH that is FROZEN before, during, and after packaging, a FOOD ESTABLISHMENT may not package FISH using a REDUCED OXYGEN PACKAGING method.

3-61. Standards of Identity

PACKAGED FOOD WILL comply with standard of identity requirements in 9 CFR 319, 21 CFR 131, 21 CFR 133, 21 CFR 135 through 21 CFR 137, 21 CFR 139, 21 CFR 145, 21 CFR 146, 21 CFR 150, 21 CFR 152, 21 CFR 155, 21 CFR 156, 21 CFR 158, 21 CFR 160, 21 CFR 161, 21 CFR 163 through 21 CFR 169; and the general requirements in 21 CFR 130 and 9 CFR 319, Subpart A.

3-62. Honestly Presented

a. FOOD WILL be offered for human consumption in a way that does not mislead or misinform the CONSUMER.

b. FOOD or COLOR ADDITIVES, colored overwraps, or lights may not be used to misrepresent the true appearance, color, or quality of a FOOD.

3-63. Food Labels

a. FOOD PACKAGED in a FOOD ESTABLISHMENT WILL be labeled as specified in LAW, including 21 CFR 101 and 9 CFR 317.

b. Except as exempted in the Federal Food, Drug, and Cosmetic Act, section 403(Q)(3) through (5) and nutrition labeling as specified in 21 CFR 101 and 9 CFR 317, Subpart B, label information WILL include—

(1) The common name of the FOOD or, in the absence of a common name, an adequately descriptive identity statement.

(2) If made from two or more ingredients, a list of ingredients in descending order of predominance by weight, including a declaration of artificial color or flavor and chemical preservatives, if contained in the FOOD.

(3) An accurate declaration of the quantity of contents.

(4) The name and place of business of the manufacturer, packer, or distributor.

c. Bulk FOOD that is available for CONSUMER self-dispensing WILL be prominently labeled with the following information in plain view of the CONSUMER:

(1) The manufacturer's or processor's label that was provided with the FOOD; or

(2) A card, sign, or other method of notification that includes the information specified in ¶¶ *b*(1) and (2) above.

d. Bulk, unPACKAGED FOODS, such as bakery products, and unPACKAGED FOODS that are portioned to CONSUMER specification need not be labeled if—

(1) *A health, nutrient content, or other claim is not made.*

(2) *There are no State or local LAWS requiring labeling.*

(3) *The FOOD is manufactured or prepared on the PREMISES of the FOOD ESTABLISHMENT or at another FOOD ESTABLISHMENT or a FOOD PROCESSING PLANT that is owned by the same PERSON or has the same FOOD ESTABLISHMENT manager and is regulated by the FOOD regulatory agency that has jurisdiction.*

3-64. Other Forms of Information

a. If required by LAW, CONSUMER warnings WILL be provided.

b. FOOD ESTABLISHMENTS' or manufacturers' dating information on FOODS may not be concealed or altered.

3-65. Consumption of Raw or Uncooked Animal Foods*

If a raw or uncooked animal FOOD (such as beef, eggs, FISH, lamb, milk, pork, POULTRY, or shellfish) is offered in a READY-TO-EAT form as a deli, menu, vended, or other item, or as a raw ingredient in another READY-TO-EAT FOOD, the PERSON-IN-CHARGE WILL inform CONSUMERS by brochures, deli case or menu advisories, label statements, table tents, placards, or other effective written means of the significantly increased risk associated with certain especially vulnerable CONSUMERS eating such FOODS in raw or undercooked form.

3-66. Discarding or Reconditioning Unsafe, Adulterated, or Contaminated Food*

The following FOOD WILL be disposed of in accordance with Department of Defense (DOD) 4160.21-M, AR 30-1, AR 30-18, and AR 40-657/NAVSUPINST 4355.4F/MCO P10110.31G, as applicable.

Section VII. SPECIAL REQUIREMENTS

a. A FOOD that is unsafe, ADULTERATED, or not honestly presented as specified in ¶ 3-1 WILL be reconditioned according to an APPROVED procedure or discarded.

b. READY-TO-EAT FOOD that may have been contaminated by an EMPLOYEE who has been restricted or excluded as specified in ¶ 2-5 WILL be discarded.

c. FOOD that is contaminated by FOOD EMPLOYEES, CONSUMERS, or other PERSONS through contact with their hands, bodily discharges (such as nasal or oral discharges), or other means WILL be discarded.

3-67. Additional Safeguards: Pasteurized Foods, Prohibited Reservice, and Prohibited Food*

In a FOOD ESTABLISHMENT that serves a HIGHLY SUSCEPTIBLE POPULATION—

a. Prepackaged juice or a prepackaged beverage containing juice, that bears a warning label as specified in 21 CFR, subsection 101.17(g) Food Labeling (Warning that their product was not pasteurized), may not be served or offered for sale.

b. Pasteurized shell eggs or pasteurized liquid, FROZEN, or dry eggs or egg products WILL be substituted for raw shell eggs in the preparation of—

(1) FOODS, such as Caesar salad, hollandaise or béarnaise sauce, mayonnaise, eggnog, ice cream, and egg-fortified BEVERAGES, and

(2) Eggs that are broken, combined in a container, and not cooked to proper internal temperature (145 °F) immediately; or eggs that are held before service following cooking.

c. FOOD in an unopened original package may not be re-served.

d. The following foods may not be served or offered for sale in a ready-to-eat form:

(1) Raw animal FOOD (such as raw or raw-marinated FISH, raw MOLLUSCAN SHELLFISH, and steak tartare) or partially cooked FOOD (such as lightly cooked FISH, rare MEAT, and soft-cooked eggs).

(2) Raw seed or bean sprouts.

CONSUMER Please obtain clean tableware before obtaining additional food

Figue 3-1. Clean Tableware

PRE-PREPARED FOOD TB MED 530; OTSG		
	DATE	TIME
Prepared	06/20/2000	1045
Use by	07/01/2000	1045

DA Label 177, Aug 91

Figure 3-2. DA Label 177, Pre-Prepared Food (Sample)

LEFTOVERS - USE WITHIN 24 HOURS Removed from Service TB MED 530, OTSG	
DATE	TIME
07/20/2000	1045

DA LABEL 178, AUG 91

Figure 3-3. DA Label 178, Leftover—Use Within 24 Hours (Sample).

Table 3-1. Minimum Cooking Temperatures and Times

Temperature °F (°C)	Time	Food
145 (63)	3 minutes	Pork, exotic species of game animals, ground or chopped meat and fish, injected meats, and eggs in multi-serving batches.
150 (66)	1 minute	
155 (68)	15 seconds	

Table 3-2. Oven Parameters Required for Destruction of Pathogens on the Surface of Roasts of Beef and Corned Beef

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

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

Table 3-3. Minimum Holding Times Required at Specified Temperatures for Cooking All Parts of Roasts of Beef and Corned Beef

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

[1]Holding time may include postoven heat rise.

CHAPTER 4
EQUIPMENT AND UTENSILS

Section I. GENERAL STANDARDS

4-1. Equipment Source Requirements

a. All FOOD SERVICE EQUIPMENT and UTENSILS used in a FOOD ESTABLISHMENT WILL meet applicable standards or criteria of —

(1) NSF International;

(2) Underwriters Laboratories (UL), Inc.;

(3) USDA and be listed in the USDA Publication MPT-2 for meat and POULTRY slaughter and processing EQUIPMENT that has been evaluated and APPROVED for use in USDA-inspected plants;

(4) Baking Industry Sanitation Standards Committee (BISSC) for bakery EQUIPMENT; or

(5) Other laboratory or national consensus standards acceptable to TSG.

b. When EQUIPMENT is available that meets NSF International standards or NSF C-2 Special Equipment and/or Devices (Food Service Equipment), and EQUIPMENT is available that meets either industry or USDA standards and listing, the EQUIPMENT meeting NSF International standards or NSF C-2 Special Equipment and/or Devices (Food Service Equipment) WILL be selected. Variance to purchase EQUIPMENT that is industry- or USDA-APPROVED, but does not meet NSF International standards or criteria, WILL be obtained in writing from TSG (DASG-HSZ), 5109 Leesburg Pike, Falls Church, VA 22041-3258, prior to purchase.

c. VENDING MACHINES, including customer-operated water VENDING MACHINES, WILL meet requirements of NSF International Standard 25 or NAMA standards.

d. Offshore procurement of foreign-manufactured FOOD service EQUIPMENT for use in OCONUS areas is authorized provided the EQUIPMENT meets sanitation standards acceptable to TSG. The acceptability of the foreign FOOD sanitation standards WILL be established by TSG. *Contracting officers WILL contact TSG (DASG-HSZ), 5109 Leesburg Pike, Falls Church, VA 22041-3258, and receive written approval prior to initiation of offshore procurement actions.*

e. Requirements stipulated in this chapter WILL be incorporated into appropriate specifications, contracts, and procurement documents for type classified, centrally or locally procured, leased and built-in-place FOOD service EQUIPMENT and UTENSILS.

4-2. Compliance Measures

FOOD EQUIPMENT WILL meet requirements specified in ¶ 4-1 and WILL demonstrate such compliance by—

a. NSF International standards or criteria.

(1) Displaying the NSF International mark on the EQUIPMENT and listing in the NSF International's *Listing of Food Equipment and Related Products, Components and Materials*, for the year the EQUIPMENT was manufactured.

(2) Successfully passing NSF International's one-time evaluation program for Government contracts.

(3) Displaying the UL's marking "Classified Sanitation, meets NSF International Standard *(Specify)*" and listing in the UL's *Directory, Food Service Equipment, Classified for Sanitation* for the year the EQUIPMENT was manufactured.

(4) Displaying the Engineering Testing Laboratory's (ETL) Inchcape Testing Services, Sanitation Label and listing in the *Directory of ETL Listed Products, Section II.*

(5) Obtaining certification from a recognized independent testing laboratory, acceptable to TSG, stating that the EQUIPMENT or UTENSILS meet applicable standards. *The Surgeon General will accept the independent testing laboratory based on the evaluation and approval by either the American Association for Laboratory Accreditation (A2LA) or the American National Standards Institute (ANSI) that the laboratory can perform satisfactory testing of FOOD service EQUIPMENT against NSF International standards or NSF C-2 Special Equipment and/or Devices (Food Service Equipment). Written approval of the independent testing laboratory by A2LA or ANSI and results of EQUIPMENT evaluation WILL be forwarded to TSG prior to awarding of any contract or procurement documents.*

b. UL safety standards.

(1) Testing or approval by UL; or

(2) Obtaining certification from any other independent testing laboratory acceptable to TSG stating that the EQUIPMENT meets UL standards

c. USDA meat and POULTRY EQUIPMENT standards. Listing in the USDA Publication MPT-2.

d. BISSC standards.

(1) Listing of the manufacturer in the BISSC's *Directory of BISSC Registered Companies* for the year the EQUIPMENT was manufactured; and

(2) Submitting the BISSC Certificate issued to the manufacturer for that EQUIPMENT model.

e. NAMA standards. Listing in the NAMA Publication M-4 for the year the EQUIPMENT was manufactured.

Section II. MATERIALS FOR CONSTRUCTION AND REPAIR

4-3. Material Characteristics*

Materials that are used in the construction of UTENSILS and FOOD-CONTACT SURFACES of EQUIPMENT may not allow the migration of deleterious substances or impart colors, odors, or tastes to FOOD and, under normal use conditions, will be—

a. Safe.

b. Durable, CORROSION-RESISTANT, and nonabsorbent.[N]

c. Sufficient in weight and thickness to withstand repeated WAREWASHING.[N]

d. Finished to have a SMOOTH, EASILY CLEANABLE surface.*

e. Resistant to pitting, chipping, crazing, scratching, scoring, distortion, and decomposition.[N]

4-4. Cast Iron, Use Limitation

Cast iron may not be used for UTENSILS or FOOD-CONTACT SURFACES of EQUIPMENT, *except as a surface for cooking as specified in NSF International Standard 4. However, cast iron may be used in UTENSILS for serving FOOD if the UTENSILS are used only as part of an uninterrupted process from cooking through service.*

4-5. Lead in Ceramic, China, and Crystal Utensils, Use Limitation

Ceramic, china, crystal UTENSILS, and decorative UTENSILS, such as handpainted ceramic or china, that are used in contact with FOOD WILL be lead-free or contain levels of lead not exceeding the limits of the UTENSIL categories in table 4-1, located at the end of this chapter.

4-6. Copper, Use Limitation*

a. Copper and copper alloys, such as brass and bronze, WILL only be permitted for use with POTABLE, noncarbonated WATER under constant service pressure.

b. Copper and copper alloys, such as brass, may not be used—

(1) In contact with a FOOD that has a pH below 6.

(2) For a fitting or tubing installed between a backflow prevention device and a carbonator.

4-7. Sponges, Use Limitation

a. Sponges may not be used in contact with cleaned and SANITIZED or in-use FOOD EQUIPMENT.

b. Sponges may be used for cleaning walls and floors. However, the sponges—

(1) WILL be cleaned, rinsed, and SANITIZED in 100-ppm chlorine or equivalent, as specified in ¶ 4-36*b*, and

(2) WILL be stored in a sanitizing solution between uses.

4-8. Lead in Solder and Flux, Use Limitation

Lead-based solder and flux WILL not be used.

4-9. Wood, Use Limitation

a. Except as specified in ¶¶ *b* and *c* below, wood and wood wicker may not be used as a FOOD-CONTACT SURFACE.

b. Hard maple or an equivalently hard, close-grained wood that meets the general requirements in ¶ 4-3 may be used for—

(1) *Cutting boards; cutting blocks, bakers' tables; and UTENSILS, such as rolling pins, doughnut dowels, and salad bowls.*

(2) *SINGLE-SERVICE ARTICLES, such as chopsticks, stirrers, or individual ice cream spoons.*

(3) *Wooden paddles used in confectionery operations for pressure scraping kettles when manually preparing confections at a temperature of 230 °F (110 °C) or above.*

c. Whole, uncut, raw fruits and vegetables, and nuts in the shell may be kept in the wood shipping containers in which they were received until the fruits, vegetables, or nuts are used.

4-10. Plastics

a. Use of safe and nonabsorbent plastics, rubber, or rubber-like materials are permitted for multiuse EQUIPMENT provided the materials are—

(1) Resistant under normal use to scratching, scoring, decomposition, crazing, chipping, and distortion.

(2) Of sufficient weight and thickness to permit repeated use and cleaning and SANITIZING by normal WAREWASHING methods.

(3) NSF International listed and meet or exceed the other requirements set forth in ¶ 4-3. The use of these materials as a FOOD-CONTACT SURFACE under other circumstances is prohibited.

b. Reuse of soft plastic containers not intended as multiuse EQUIPMENT is prohibited (for example, SINGLE-USE deli PACKAGES and pails, and milk jugs).

4-11. Mollusk and Crustacean Shells, Use Limitation

Mollusk, crustacean, and similar shells with the shellfish intact (as received in the natural state) may be used only once as serving containers.

4-12. Applying Paint

Application of paint or other use of paint or coatings, except by manufacturer in compliance with NSF International standard(s), on a FOOD-CONTACT SURFACE and SPLASH ZONE is prohibited.

4-13. Nonstick Coatings, Use Limitation

a. Nonstick coatings are APPROVED for heated FOOD-CONTACT SURFACES provided they meet NSF International standards.

b. Multiuse KITCHENWARE, such as frying pans, griddles, sauce pans, cookie sheets, and waffle bakers, that have a perfluorocarbon resin coating on heated surfaces WILL be used with nonscoring or nonscratching UTENSILS and cleaning aids.

4-14. Nonfood-Contact Surfaces

NONFOOD-CONTACT SURFACES of EQUIPMENT that are exposed to splash, spillage, or other FOOD soiling or that require frequent cleaning WILL be constructed of a CORROSION-RESISTANT, nonabsorbent, and SMOOTH material.

4-15. Single-Service, Single-Use Articles, Material Characteristics*

Materials that are used to make SINGLE-SERVICE and SINGLE-USE ARTICLES WILL meet requirements as specified in ¶ 4-3.

Section III. SEALING COMPOUNDS

4-16. Requirements

a. Sealing compounds WILL provide a water- and vermin-tight seal.

b. All sealing compounds WILL—

(1) Be sufficiently pliable for ease of application, yet be adequately firm after application so as not to be gummy or sticky.

(2) Be nonshrinking and WILL retain reasonable elasticity after installation.

(3) Meet the requirements specified in ¶ 4-3.

4-17. Uses

a. Sealing compounds used—

(1) In the installation of refrigeration EQUIPMENT WILL be capable of withstanding alternating room temperatures and refrigerator temperatures without cracking or unsealing.

(2) In the installation of cooking and warming EQUIPMENT WILL be capable of withstanding alternating room temperatures and heating temperatures without cracking or unsealing.

(3) On FOOD-CONTACT SURFACES WILL be NSF International certified or USDA listed and WILL not void the listing of the EQUIPMENT.

b. Materials or EQUIPMENT requiring use of sealing compounds WILL be physically secured before such compounds are applied. *Sealants WILL not be used to fill open spaces or voids due to improper installation, design, or fabrication.*

Section IV. EQUIPMENT AND UTENSIL DESIGN AND FABRICATION

4-18. Food Contact Equipment Design, Strength, and Cleanability*

a. All FOOD contact EQUIPMENT and UTENSILS, including plasticware, WILL be designed and fabricated for durability under conditions of normal use. They WILL be resistant to denting, buckling, pitting, chipping, and crazing.

b. FOOD-CONTACT SURFACES WILL be—

(1) SMOOTH.

(2) Free of breaks, open seams, cracks, chips, pits, and similar imperfections.

(3) Free of sharp internal angles, corners, and crevices.

(4) Finished to have SMOOTH welds and joints.

(5) Accessible for cleaning and inspection by one of the following methods:

(a) Without being disassembled.

(b) By disassembling without the use of tools.

(c) By easy disassembling with the use of handheld tools, such as screwdrivers, pliers, open-end wrenches, and Allen wrenches, commonly available to maintenance and cleaning personnel.

4-19. Nonfood-Contact Surfaces Design and Cleanability

NONFOOD-CONTACT SURFACES that are exposed to splash, spillage, or other FOOD soiling or that require frequent cleaning WILL be—

a. Constructed of a CORROSION-RESISTANT, nonabsorbent, and SMOOTH material.

b. Free of unnecessary ledges, projections, and crevices.

c. Designed and constructed to allow easy cleaning and to facilitate maintenance.

4-20. Clean-in-Place Equipment

a. CLEAN-IN-PLACE (CIP) EQUIPMENT WILL meet the characteristics specified in ¶ 4-18 and WILL be designed and constructed so that cleaning and SANITIZING solutions circulate throughout a fixed system and contact all interior FOOD-CONTACT SURFACES. The system WILL be self-draining or capable of being completely drained of cleaning and SANITIZING solutions.

b. CIP EQUIPMENT that is not designed to be disassembled for cleaning WILL be designed with inspection access points to ensure that all interior FOOD-CONTACT SURFACES throughout the fixed system are being effectively cleaned and SANITIZED.

4-21. Pressure Spray Cleaning

Fixed EQUIPMENT designed and fabricated to be cleaned and sanitized by pressure spray methods WILL be APPROVED by the UL for pressure spray cleaning.

4-22. "V" Threads, Use Limitation

"V"-type threads WILL be designed to facilitate cleaning. Ordinary "V"-type threads are prohibited in FOOD-CONTACT SURFACES, except that use of such threads WILL be minimized in EQUIPMENT, such as ice makers or hot oil cooking EQUIPMENT and hot oil filtering systems.

4-23. Bearings and Gear Boxes, Leakproof

EQUIPMENT containing bearings and gears requiring lubricants WILL be designed and constructed so that the lubricant cannot leak, drip, or be forced into FOOD or onto FOOD-CONTACT SURFACES. *For those pieces of EQUIPMENT that cannot be designed to prevent contact of lubricants with FOOD or FOOD-CONTACT SURFACES, only safe foodgrade lubricants listed in USDA Publication 1419 WILL be used.*

4-24. Beverage Tubing Separation

a. Tubing used to convey BEVERAGES or BEVERAGE ingredients to dispensing heads may be in contact with stored ice, provided that such tubing is—

(1) Fabricated from SAFE MATERIALS. Tubing WILL be APPROVED for both internal and external contact with FOOD.

(2) Grommeted at entry and exit points to minimize moisture (condensation) entering the ice machine or the ice storage bin.

(3) Kept clean.

b. Replacement tubing WILL conform to NSF International standards or equivalent and WILL not void any NSF International listings.

c. Drainage or drainage tubes from dispensing units WILL not pass through the ice machine or the ice storage bin. Drainage tubes WILL be cleaned or replaced on a regular basis to prevent contaminant buildup on the inside tubing walls.

4-25. Bulk Dispensers

Bulk milk dispensers, multiservice shipping and dispenser containers, and dispensing tubes WILL conform to the provisions of Military Standard (MIL STD) – 175.

4-26. Hot Oil Filtering Equipment

Hot oil filtering EQUIPMENT WILL—

a. Meet the characteristics specified in ¶¶ 4-18 or 4-19.

b. Be readily accessible for filter replacement and cleaning of the filter.

4-27. Can Openers

Cutting or piercing parts of can openers WILL be readily removable for cleaning, sanitizing, and replacement.

4-28. Kick Plates, Removable

Kick plates WILL be designed so that the areas behind them are accessible for inspection and cleaning by being—

a. Removable by one of the methods specified in ¶ 4-18 or capable of being rotated open.

b. Removable or capable of being rotated open without unlocking EQUIPMENT doors.

4-29. Equipment Compartment Drainage

EQUIPMENT compartments that are subject to accumulation of moisture, due to conditions, such as condensation, FOOD or BEVERAGE drip, or water from melting ice, WILL be sloped to an outlet that allows complete draining.

4-30. Case Lot Handling Equipment

EQUIPMENT, such as dollies, pallets, racks, and skids, used to store and transport large quantities of PACKAGED FOODS received from a supplier in a cased or overwrapped lot WILL be designed to be moved by hand or by conveniently available EQUIPMENT, such as hand trucks and forklifts. Wood pallets and racks may not be used for storage, except in FIELD or TEMPORARY FOOD ESTABLISHMENTS.

4-31. Temperature Measuring Devices

TEMPERATURE MEASURING DEVICES (TMDs) WILL—

a. Be provided and readily accessible for use in ensuring attainment and maintenance of FOOD temperatures as specified in chapter 3.

b. Meet the following requirements:

(1) TMDs may not have sensors or stems constructed of glass, *except that thermometers with glass sensors or stems that are encased in a shatterproof coating, such as candy thermometers, may be used.**

(2) FOOD TMDs WILL have a numerical scale, printed record, or digital readout in increments no greater than the 2 °F (1 °C).

(3) TMDs that are used to check FOOD, ambient air, and water temperatures WILL be designed to be easily readable and accurate to ± 2 °F (1 °C), regardless if they are scaled in Celsius, Fahrenheit, or dually scaled in Celsius and Fahrenheit.

(4) In a mechanically refrigerated or hot FOOD storage unit, the sensor of a TMD WILL be located to measure the air temperature in the warmest part of a mechanically refrigerated unit and in the coolest part of a hot FOOD storage unit.

(5) Cold- or hot-holding EQUIPMENT used for PHF WILL be designed to include, and WILL be equipped with, at least one integral or permanently affixed TMD that is located to allow easy viewing of the device's temperature display. *This requirement does not apply to EQUIPMENT for which the placement of a TMD is not a practical means for measuring the ambient air surrounding the FOOD because of the design, type, and use of the EQUIPMENT, such as calrod units, heat lamps, cold plates, bainsmarie, steam tables, insulated FOOD transport containers, and salad bars.*

(6) TMDs WILL be maintained in a state of good repair and condition and calibrated in accordance with manufacturer's specifications as necessary to ensure their accuracy, except that FOOD thermometers used by inspectors WILL be calibrated weekly or more often if necessary.

Section V. EQUIPMENT INSTALLATION AND LOCATION

4-32. General Installation

FOOD service EQUIPMENT WILL be installed using guidance provided in NSF International's *Installation Manual for Food Service Equipment,* the USACHPPM TG No. 194, and the specific requirements presented in this bulletin.

4-33. Equipment, Clothes Washers and Dryers, and Storage Cabinets Location

a. Except as specified in ¶ *c* below, EQUIPMENT, a cabinet used for the storage of FOOD, or a cabinet that is used to store cleaned and SANITIZED EQUIPMENT, UTENSILS, laundered LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES may not be located—

(1) In locker rooms.

(2) In toilet rooms.

(3) In garbage rooms.

(4) In mechanical rooms.

(5) Under sewer lines that are not shielded to intercept potential drips.

(6) Under leaking water lines, including leaking automatic fire sprinkler heads.

(7) Under lines on which water has condensed.

(8) Under open stairwells.

(9) Under other sources of contamination.

b. The requirements in ¶ a above do not prohibit the storage of FOOD *in areas served by automatic fire protection sprinkler heads provided the requirements of the National Fire Protection Association (NFPA) Standard 13 are followed.*

c. A storage cabinet used for LINENS *or* SINGLE-SERVICE *or* SINGLE-USE ARTICLES *may be stored in a locker room.*

d. If a mechanical clothes washer or dryer is provided, it WILL be located so that the washer or dryer is protected from contamination and only where there is no exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; and unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES.

4-34. Fixed Equipment Installation, Spacing or Sealing

a. EQUIPMENT that is fixed because it is not EASILY MOVABLE WILL be installed so that it is—

(1) Spaced to allow access for cleaning along the sides, behind, and above the EQUIPMENT;

(2) Spaced from adjoining EQUIPMENT, walls, and ceilings a distance of not more than 1/32 in (1 millimeter (mm)); or

(3) SEALED to adjoining EQUIPMENT or walls, if the EQUIPMENT is exposed to spillage or seepage. (See NSF International's *Installation Manual for Food Service Equipment.)*

b. TABLE-MOUNTED EQUIPMENT that is not EASILY MOVABLE WILL be installed to allow cleaning of the EQUIPMENT and areas underneath and around the EQUIPMENT by being SEALED to the table or elevated on legs as specified in ¶ 4-35*c*.

4-35. Fixed Equipment, Elevation

a. Floor-mounted EQUIPMENT that is not EASILY MOVABLE WILL be SEALED to the floor or elevated on legs that provide at least a 6-in (15-cm) clearance between the floor and the EQUIPMENT. *If no part of the floor under the floor-mounted* EQUIPMENT *is more than 6 in (15 cm) from the point of cleaning access, a 4-in (10-cm) clearance space is acceptable.*

b. ¶ a above does not apply to display shelving units, display refrigeration units, and display freezer units located in the CONSUMER *shopping areas of a retail* FOOD *store, if the floor under the units is maintained clean.*

c. TABLE-MOUNTED EQUIPMENT that is not EASILY MOVABLE WILL be elevated on legs that provide at least a 4-in (10-cm) clearance between the table and the EQUIPMENT or through use of a cantilever to allow cleaning.

4-36. Wiping Cloths

SINGLE-USE paper towels or disposable cloths are preferred to reusable wiping cloths. If reusable wiping cloths are used, the following measures are required:

a. Cloths used for wiping FOOD spills on TABLEWARE, such as plates or bowls being served to the CONSUMER, WILL be clean, dry, and used for no other purpose.

b. Moist cleaning cloths WILL be used for wiping FOOD spills on KITCHENWARE and FOOD-CONTACT SURFACES of EQUIPMENT and for other purposes. These cloths WILL be rinsed frequently in a 100-ppm chlorine, or equivalent, sanitizing solution and WILL be stored in a sanitizing solution between uses.

c. Cloths used for cleaning nonFOOD-CONTACT SURFACES of EQUIPMENT, such as counters, dining table tops, and shelves, WILL be kept clean and rinsed as specified in ¶ *b* above and used for no other purpose.

d. Cloths, brushes, buckets, etc. SHOULD *be color coded to easily identify those items used for cleaning and sanitizing* FOOD-CONTACT SURFACES *from those used for nonFOOD-CONTACT SURFACES. Cloths and* EQUIPMENT *used for cleaning highly contaminated surfaces (for example,* POULTRY *cutting boards and slicers)* SHOULD *be color coded with a distinct color to minimize cross contamination.*

e. Color code WILL be posted in the FOOD ESTABLISHMENT where used.*

4-37. Steel Wool

Steel wool or steel wool pads WILL not be used for cleaning FOOD-CONTACT SURFACES in any FOOD service operation. Use of woven brass or plastic pads is allowed for scrubbing pots and pans, barbecue grills, and stove cooking surfaces provided the pads are cleaned and sanitized after each cleanup period.

Section VI. MAINTENANCE AND REPLACEMENT

4-38. Good Repair and Operation

All EQUIPMENT and UTENSILS WILL be maintained in a state of good repair and sound condition that meets requirements specified in sections II and III of this chapter, and the following requirements:

a. EQUIPMENT components (such as doors, seals, hinges, fasteners, and kick plates) WILL be kept intact, tight, and adjusted in accordance with the manufacturer's specifications.

b. Cutting or piercing parts WILL be kept sharp to minimize the creation of metal fragments that can contaminate FOOD when the container is opened.

c. Surfaces, such as cutting blocks and boards, that are subject to scratching and scoring WILL be—

(1) Resurfaced if they can no longer be effectively cleaned and SANITIZED, or

(2) Discarded if they are not capable of being resurfaced.

d. All KITCHENWARE and FOOD-CONTACT SURFACES of EQUIPMENT WILL be maintained free of breaks, cracks, chips, pits, and similar imperfections. The MEDICAL COMMANDER or designated representative may require discontinued use of FOOD-CONTACT SURFACES of EQUIPMENT that present HAZARDS. *The MEDICAL COMMANDER or designated representative may authorize continued use of FOOD service EQUIPMENT or UTENSILS that do not meet NSF International standards but are serviceable and do not present a HAZARD.*

e. FIELD FOOD SERVICE EQUIPMENT procured using a commercial item description will meet NSF International standards.

f. FIELD FOOD SERVICE EQUIPMENT procured for and limited to field feeding operations WILL be evaluated in both design and construction by—

(1) Food Equipment Branch, U.S. Army Soldier Systems Command, Natick Research, Development and Engineering Center, Natick, MA; or

(2) Support Operations Division, Deputy Chief of Staff for Operations, USACHPPM.

4-39. Maintenance Programs

FOOD SERVICE EQUIPMENT maintenance personnel, both Government and contractor, WILL establish a program for periodic (at least 2 times per year) cleaning of electric motors, refrigeration compressors, controls, and other areas of FOOD service EQUIPMENT not normally accessed by FOOD service EMPLOYEES. This cleaning WILL reduce insect and rodent harborage.

Section VII. EQUIPMENT AND UTENSIL CLEANING AND SANITIZING

4-40. Cleaning Frequency of Equipment and Utensils*

All EQUIPMENT, FOOD-CONTACT SURFACES, NONFOOD-CONTACT SURFACES, and UTENSILS WILL be clean to sight and touch. The frequency of cleaning is as follows:

a. FOOD-CONTACT SURFACES of EQUIPMENT and UTENSILS WILL be cleaned—

(1) Before each use of a different type of raw animal FOOD, such as beef, FISH, lamb, pork, or POULTRY. *This section does not apply if raw animal FOODS that require higher cooking temperatures specified under ¶¶ 3-42a(2) and (3) are prepared after FOODS that require cooking temperatures specified under ¶¶ 3-42a(1) and 3-42b, provided that the process is continual with no interruptions and the FOOD-CONTACT SURFACES are cleaned and SANITIZED as specified in ¶¶ b and c below;*

(2) Each time there is a change from working with raw FOODS to working with READY-TO-EAT FOODS;

(3) Between uses of raw fruits and vegetables and with PHF;

(4) Before using or storing a FOOD TMD; and

(5) At any time during the operation when contamination may have occurred, or after any interruptions greater than 30 minutes that may allow multiplication of pathogens to a harmful level.

b. If used with PHF, EQUIPMENT FOOD-CONTACT SURFACES and UTENSILS WILL be cleaned and SANITIZED throughout the day at least every 4 hours.

c. Surfaces of UTENSILS and EQUIPMENT contacting PHF may be cleaned and SANITIZED less frequently than every 4 hours if—

(1) In storage, containers of PHF and their contents are maintained at temperatures specified in chapter 3, and the containers are cleaned and SANITIZED when they are empty.

(2) UTENSILS and EQUIPMENT are used to prepare FOOD in a refrigerated room that maintains the UTENSILS, EQUIPMENT, and FOOD under preparation at temperatures specified in chapter 3, and the UTENSILS and EQUIPMENT are cleaned and SANITIZED at least every 8 hours.

(3) *EQUIPMENT, such as a reach-in refrigerator, is used for storage of PACKAGED or UNPACKAGED FOOD, and the EQUIPMENT is cleaned and SANITIZED at a frequency necessary to preclude accumulation of soil residues.*

(4) The cavities and seals of microwave ovens are cleaned and SANITIZED at least every 24 hours.

(5) *Ice machines and dispensers are emptied, drained, cleaned, and SANITIZED at least every 30 days. Frequency can be increased by the MEDICAL COMMANDER or designated representative based on local conditions.*

(6) *Modified cleaning schedules are APPROVED by the MEDICAL COMMANDER or designated representative based on the consideration of—*

(a) Characteristics of the EQUIPMENT and its use.

(b) The type of FOOD involved.

(c) The amount of FOOD residue accumulation.

(d) The temperature at which the FOOD is maintained during the operation and the potential for the rapid and progressive multiplication of pathogenic or toxigenic microorganisms that are capable of causing foodborne disease.

d. Surfaces of UTENSILS and EQUIPMENT contacting FOOD that is not POTENTIALLY HAZARDOUS WILL be cleaned[N] —

(1) At any time when contamination may have occurred.

(2) At least every 24 hours for iced tea dispensers and CONSUMER self-service UTENSILS, such as tongs, scoops, or ladles.

(3) Before restocking CONSUMER self-service EQUIPMENT and UTENSILS, such as condiment dispensers and display containers.

e. EQUIPMENT, such as ice bins, and BEVERAGE dispensing nozzles and enclosed components of EQUIPMENT, such as ice makers, BEVERAGE dispensing lines or tubes, coffee bean grinders, and water vending EQUIPMENT WILL be cleaned—

(1) At a frequency specified by the manufacturer, or

(2) If manufacturer specifications are not available, at a frequency necessary to preclude accumulation of soil or mold and to prevent insect attraction. Surfaces that accumulate sugars and syrup WILL be cleaned and SANITIZED daily.

4-41. Manual Cleaning and Sanitizing Equipment

Manual cleaning and SANITIZING EQUIPMENT WILL meet the following requirements:

a. Except as specified in¶ *b* below, a sink with at least three compartments WILL be provided for manually washing, rinsing, and SANITIZING EQUIPMENT and UTENSILS. Sink compartments WILL be large enough to accommodate immersion of the largest EQUIPMENT and UTENSILS normally used. If EQUIPMENT or UTENSILS are too large for the WAREWASHING sink, a WAREWASHING machine, or alternative EQUIPMENT, an alternative method APPROVED by the MEDICAL COMMANDER or designated representative may be used. *Additional manual cleaning guidance may be found in Military Handbook (MIL HDBK) – 740, and Field Manual (FM) 10-23.*

b. Alternative manual WAREWASHING EQUIPMENT may include—

(1) *High-pressure detergent sprayers;*

(2) *Low- or line-pressure spray detergent foamers;*

(3) *Other task-specific cleaning EQUIPMENT;*

(4) *Brushes or other implements;*

(5) *Two-compartment sinks as specified in ¶ c below; or*

(6) *Receptacles that substitute for the compartments of a multi-compartment sink.*

c. Before a two-compartment sink is used, the PERSON-IN-CHARGE WILL have its use APPROVED by the MEDICAL COMMANDER or designated representative. The nature of WAREWASHING WILL be limited to batch operations for cleaning KITCHENWARE, such as between cutting one type of raw MEAT and another or cleanup at the end of a shift, and—

(1) A limited number of items WILL be cleaned.

(2) The cleaning and SANITIZING solutions WILL be made up immediately before use and drained immediately after use.

(3) A detergent-SANITIZER or a non-distinct water rinse that is integrated as part of a hot water SANITIZATION immersion step WILL be used to clean and SANITIZE.

(4) Washing, rinsing, and SANITIZATION WILL still be accomplished as specified in ¶ 4-43.

(5) The wash compartment WILL be drained, cleaned, and refilled with a sanitizing solution, and the EQUIPMENT is then sanitized and air dried as specified in ¶ 4-43 *b.*

d. Drain boards, UTENSIL racks, or tables large enough to accommodate all soiled and cleaned items that may accumulate during hours of operation WILL be provided for necessary UTENSIL holding before cleaning and after SANITIZING.

e. Swing-arm faucets that can serve more than one sink compartment SHOULD not be used for the final rinse sink.

4-42. Precleaning

a. FOOD debris on EQUIPMENT and UTENSILS WILL be scrapped over a waste disposal unit, scupper, waste pulper, or garbage receptacle or WILL be removed in a WAREWASHING machine with a prewash cycle.

b. If necessary for effective cleaning, UTENSILS and EQUIPMENT WILL be preflushed, presoaked, or scrubbed

with abrasives. *Preflushed water temperature SHOULD not exceed 80-110 °F (27-43 °C).*

4-43. Manual Washing and Rinsing Procedures

a. Except for fixed EQUIPMENT and UTENSILS too large to be cleaned in sink compartments as specified in ¶ *c* below, manual washing and rinsing WILL be conducted in the following manner:

(1) Sinks will be thoroughly cleaned, rinsed, and SANITIZED before each use or at a frequency to prevent recontamination of EQUIPMENT and UTENSILS. WAREWASHING sinks may not be used for handwashing or dumping mop water.

(2) EQUIPMENT and UTENSILS WILL be thoroughly washed in the first compartment of the three-compartment sink with a hot detergent solution that is kept clean and maintained at not less than 110 °F (43 °C). The wash solution of soap, detergent, acid cleaner, alkaline cleaner, degreaser, abrasive cleaner, or other cleaning agent WILL be APPROVED for FOOD SERVICE EQUIPMENT and used according to the cleaning agent manufacturer's label instructions.

(3) EQUIPMENT and UTENSILS WILL be rinsed free of detergent and abrasives in the second compartment of the sink with clean water that is kept clean and maintained at not less than 120 °F (49 °C).

b. EQUIPMENT and UTENSILS WILL be SANITIZED in the third compartment of the three-compartment sink in one of the following manners:*

(1) Immersion in hot water maintained at 171 °F (77 °C) or above for at least 30 seconds. When this method is used, the SANITIZING compartment of the sink WILL be —

(a) Designed with an integral heating device that is capable of maintaining water at a temperature not less than 171 °F (77 °C).[N]

(b) Provided with a TMD that is readily accessible for frequently measuring the washing and sanitizing temperatures.[N]

(c) Provided with a rack or basket to allow complete immersion of EQUIPMENT and UTENSILS into the hot water.[N]

(d) Provided with personal protective EQUIPMENT required by the supporting safety office (for example, gloves, apron, etc.).

(2) Immersion in a clean SANITIZING solution containing an APPROVED SANITIZER as listed in 21 CFR 178.1010 at appropriate exposure times, and used in accordance with the EPA-APPROVED manufacturer's label instructions and as follows:

(a) In a chlorine solution for an exposure time of at least 15 seconds at a temperature of 75 °F (24 °C), at a solution pH range of 6 – 10, and a concentration of 100 milligrams per liter (mg/L) (ppm). *Chlorine solutions containing a concentration of 200 mg/L or more WILL be diluted, and the SANITIZED EQUIPMENT WILL receive an additional rinse with DRINKING WATER. Two tablespoons (1 ounce) of household-type chlorine bleach in 4 gallons of water provides a starting solution of approximately 100-ppm FAC. Do not use scented chlorine bleach to sanitize food service EQUIPMENT, UTENSILS, OR FOOD-CONTACT SURFACES.*

(b) In an iodine solution for an exposure time of at least 30 seconds at a minimum temperature of 75 °F (24 °C), but no higher than 120 °F (43 °C); at a pH level of 5.0 or less, unless the manufacturer's use directions included in the labeling specify a higher pH limit of effectiveness; and a concentration between 12.5 and 25 mg/L (ppm). *Iodine solutions containing a concentration of 25 mg/L or more WILL be diluted, and the SANITIZED EQUIPMENT WILL receive an additional rinse with DRINKING WATER. Iodine solutions have certain advantages because they have lower volatility than chlorine, and there is visible color confirmation of the presence of the active ingredient.*

(c) In a quaternary ammonium compound solution at a minimum temperature of 75 °F (24 °C), at a concentration of 200 mg/L (ppm) or as specified in 21 CFR 178.1010, and used only in water with 500 mg/L hardness or less. *Quaternary ammonium solutions containing a concentration of 200 mg/L or more WILL be diluted, and the SANITIZED EQUIPMENT WILL receive an additional rinse with DRINKING WATER.*

(3) If a chemical SANITIZER other than chlorine, iodine, or a quaternary ammonium compound is used, it WILL be APPROVED and listed in 21 CFR 178.1010 and applied in accordance with the manufacturer's use directions included in the labeling. The MEDICAL COMMANDER or designated representative WILL APPROVE these SANITIZERS prior to use.

c. If the EQUIPMENT is fixed or the UTENSILS are too large to be washed and SANITIZED in either a three-compartment sink or mechanical WAREWASHER, washing WILL be done by using alternative manual washing EQUIPMENT as specified in ¶ 4-41*b* and in accordance with the following procedures:

(1) EQUIPMENT WILL be disassembled as necessary to allow access of the detergent solution to all parts.

(2) EQUIPMENT components and UTENSILS WILL be scrapped or rough cleaned to remove FOOD particle accumulation.

(3) EQUIPMENT FOOD-CONTACT SURFACES and UTENSILS will be washed to remove or completely loosen soils by using the manual or mechanical means necessary, such as the application of detergents containing wetting agents and emulsifiers; acid, alkaline, or abra-

sive cleaners; hot water; brushes; scouring pads; high-pressure sprays; or ultrasonic devices.

(4) EQUIPMENT FOOD-CONTACT SURFACES and UTENSILS WILL be SANITIZED with an APPROVED sanitizer solution at concentration levels and contact times as specified in ¶¶ *b* (2) and (3) above. *Sanitizer solution concentration SHOULD be determined at the point where the sanitizer solution contacts the UTENSIL OR EQUIPMENT surfaces.**

d. EQUIPMENT and UTENSILS too large to be SANITIZED by immersion WILL be SANITIZED in-place by other methods APPROVED by the MEDICAL COMMANDER or designated representative. These methods may include—

(1) Treating with live, additive-free steam, but the steam WILL be confined. *For existing FOOD ESTABLISHMENTS where steam additives are used, only those additives listed in 21 CFR 173.310 may be APPROVED for use.*

(2) Using high-pressure detergent-SANITIZER sprayers or low-pressure spray foams with an EPA-registered detergent or detergent/disinfectant APPROVED for FOOD-CONTACT SURFACES per the manufacturer's instructions.

4-44. Manual Warewashing Equipment, Chemical Sanitization Using Detergent-Sanitizer Combination

If a detergent-SANITIZER is used to SANITIZE in a cleaning and SANITIZING procedure where there is no distinct water rinse between the washing and SANITIZING steps, the agent applied in the SANITIZING step WILL be the same detergent-SANITIZER that is used in the washing step.

4-45. Determining Chemical Sanitizer Concentration

a. Concentration of the SANITIZING solution WILL be accurately determined when sanitizer solutions are initially prepared (or starts pumping) and throughout the period of use. A test kit or other device that accurately measures the concentration in mg/L (ppm) of SANITIZING solutions WILL be provided at each sink and used to verify sanitizer solution concentration. (For mechanical WAREWASHING the SANITIZER concentration on the disk or UTENSIL surface WILL be taken.)

b. The pH of SANITIZING solution WILL be accurately determined when chlorine or iodine SANITIZERS are used. Additionally, the total hardness of the water WILL be determined prior to using quaternary ammonium SANITIZERS. *FOOD ESTABLISHMENTS may request assistance from the MEDICAL COMMANDER or designated representative for determining pH and water hardness.*

c. Chemical SANITIZER concentrations WILL be determined for both manual and mechanical WAREWASHING and emergency chemical SANITIZING.

4-46. Mechanical Cleaning and Sanitizing

Basic guidance on mechanical cleaning and SANITIZING is contained in MIL HDBK-740 and NSF International's pamphlet, *Recommended Field Evaluation Procedures for Spray-Type Dishwashing Machines.*

a. Cleaning and SANITIZING may be accomplished by use of spray-type or immersion dishwashing machines or any other type of machine or device that meets NSF International standards for mechanical dish or pot and pan washing EQUIPMENT (WAREWASHING).

b. WAREWASHING machines WILL be provided with an easily accessible and readable data plate affixed to the machine by the manufacturer. The plate WILL indicate the machine's design and operating specifications, including the—

(1) Temperatures required for washing, rinsing, and SANITIZING.

(2) Pressure required for the freshwater rinse, *unless the machine is designed to use only a pumped SANITIZING rinse.*

(3) Conveyor speed for conveyor machines or cycle time for stationary rack machines.

c. A WAREWASHING machine and its auxiliary components WILL be operated in accordance with the machine's data plate and other manufacturer's instructions. Local modification of such EQUIPMENT is prohibited if it violates manufacturer's warranty and NSF International listing. *Local modification (for example, addition of an emergency backup chemical sanitizer) that does not void NSF listing and that meets SANITIZATION requirements WILL be APPROVED in writing by TSG. Local permanent conversion from hot water to a chemical SANITIZING machine is not authorized.*

d. The wash and rinse tanks of WAREWASHING machines WILL be equipped with baffles, curtains, or other effective means to minimize internal cross contamination of the solutions in wash and rinse tanks and to minimize the escape of heat and moisture.

e. Automatic detergent dispensers, wetting agent dispensers, and liquid sanitizer injectors, where provided, WILL meet the requirements of NSF International Standard 29 and be properly installed and maintained.

f. A WAREWASHING machine WILL be equipped with an easily calibrated TMD that is numerically scaled and accurate to ± 3 °F (1.7 °C) and that indicates the temperature of the water—

(1) In each wash and rinse tank.

(2) As the water enters the hot water SANITIZING final rinse manifold or the chemical SANITIZING solution tank.

g. A 1/4-in (6.4 mm) iron pipe size valve WILL be provided immediately downstream or upstream from the fresh hot water SANITIZING rinse control valve of a WAREWASHING machine to allow checking of the flow pressure of the SANITIZING rinse. This subdivision does not apply to a machine that uses only a pumped SANITIZING rinse. The flow pressure of the fresh hot water SANITIZING rinse in a WAREWASHING machine may not be less than 15 nor more than 25 pounds per square inch (103 to 172 KiloPascall) measured in the water line immediately upstream from the fresh hot water SANITIZING rinse control valve.

h. Separate drain boards, UTENSIL racks, movable carts, or tables large enough to accommodate all soiled and cleaned items that may accumulate during hours of operation WILL be provided for necessary UTENSIL holding before cleaning and after SANITIZING. Attached drain boards of WAREWASHING sinks WILL be self-draining. The location and construction of drain boards may not interfere with the proper use of the WAREWASHING machine.

i. Conveyors in WAREWASHING machines WILL be accurately timed to assure proper exposure time in wash and rinse cycles per manufacturer's specifications listed on the machine data plate.

j. EQUIPMENT and UTENSILS WILL be flushed or scraped and, when necessary, soaked to remove gross FOOD particles and soil prior to being washed in a WAREWASHING machine, unless a prewash cycle is a part of the WAREWASHING machine operation. EQUIPMENT and UTENSILS WILL be placed in racks, trays, or baskets, or on conveyors in a way that FOOD-CONTACT SURFACES are exposed to the unobstructed application of detergent wash and clean rinse waters and that permits free draining.

k. WAREWASHING machines WILL thoroughly wash all EQUIPMENT and UTENSILS using a clean wash solution of soap, detergent, acid cleaner, alkaline cleaner, degreaser, abrasive cleaner, or other cleaning agent according to the cleaning agent manufacturer's label instructions. WAREWASHING machines using chemicals for SANITIZING may be used provided that they meet the requirements of NSF International Standard 3 for chemical SANITIZING, and —

(1) The temperature of the wash water is 120 °F (49 °C) or greater, and the chemical SANITIZING rinse water temperature is maintained within the temperature range specified by the machine's manufacturer.

(2) Chemicals added for SANITIZING purposes are automatically dispensed, and an alarm device is provided to indicate when more chemical sanitizer needs to be added or the chemical sanitizer feed has been interrupted.

(3) UTENSILS and EQUIPMENT are exposed to the final chemical SANITIZING rinse per the manufacturer's specifications for time and concentration as listed on the machine's data plate.

(4) EQUIPMENT FOOD-CONTACT SURFACES and UTENSILS WILL be SANITIZED with an APPROVED SANITIZING solution at concentration levels and contact times as specified in ¶¶ 4-43*b* (2) and (3) and APPROVED by the manufacturer for use with the machine.*

(5) A test kit or other device that accurately measures the ppm concentration of the SANITIZING solution WILL be available and used as specified in ¶ 4-45.

l. WAREWASHING machines using hot water for SANITIZING may be used provided they meet applicable NSF International standards and the wash water and pumped rinse water are kept clean and maintained at the temperatures listed in NSF International Standard 3, as indicated on the machine's data plate. Mechanical WAREWASHING machines that use hot water to sanitize WILL achieve a surface temperature of 160 °F (71 °C), as measured by an irreversible temperature indicating device, on the EQUIPMENT or UTENSILS being SANITIZED.*

m. Checking temperatures in WAREWASHING machines may be accomplished using the guidelines contained in NSF International Standard 3 and NSF International's pamphlet, Recommended Field Evaluation Procedures for Spray-Type Dishwashing Machines. Additionally, Thermolabel®, a temperature-sensitive tape, may be used to check the final dish temperature for hot-water SANITIZING WAREWASHING machines. These temperature indicators are available from Paper Thermometer Co., Inc., P.O. Box 129, Greenfield, NH 03047. Thermolabels selected WILL be capable of measuring plate temperatures for hot water SANITIZING machines within the requirement of 160 °F (71 °C).

n. All WAREWASHING machines WILL be thoroughly cleaned at least daily and WILL be operated and serviced as specified by the manufacturer.

o. Homestyle WAREWASHING machines are prohibited in a FOOD ESTABLISHMENT.

® Thermolabel is a registered trademark of Paper Thermometer Co., Greenfield, N.H. Use of trademarked names does not imply endorsement by the U.S. Army but is intended only to assist in identification of a specific product.

p. Chemical SANITIZER systems may be installed as emergency backup on hot- water SANITIZING WAREWASHING machines. These backup SANITIZING systems WILL meet NSF International standards for chemical SANITIZERS on the make and model machine they are used. Emergency SANITIZERS WILL activate when the final rinse temperature falls below the SANITIZING temperature and turn off when the final rinse returns to the SANITIZING temperature.

4-47. Drying

After SANITIZING by either the manual or the machine method, EQUIPMENT and UTENSILS WILL be air-dried before contact with FOOD or may be used after adequate draining as specified in 21 CFR 178.1010. Appropriate drying areas WILL be provided for the racks coming out of the WAREWASHING machine to permit air drying and to prevent recontamination of the clean items. Use of dish towels is prohibited.

4-48. Returnables, Cleaning for Refilling*

a. A returned empty container or a FOOD-specific container for BEVERAGES, such as coffee mugs, may be refilled at a FOOD ESTABLISHMENT if—

(1) Only a BEVERAGE that is not a PHF is used as specified in ¶ 3-30*a*.

(2) The design of the container and of the rinsing EQUIPMENT and the nature of the BEVERAGE, when considered together, allow effective cleaning at home or in the FOOD ESTABLISHMENT.

(3) Before refilling, facilities for rinsing with fresh, hot water that is under pressure and not recirculated are provided as part of the dispensing system.

(4) The CONSUMER-owned container returned to the FOOD ESTABLISHMENT for refilling is refilled for sale or service only to the same CONSUMER.

(5) The container is refilled by—

(a) An EMPLOYEE of the FOOD ESTABLISHMENT, OR

(b) The owner of the container, provided the BEVERAGE system includes a contamination-free transfer process that cannot be bypassed by the container owner.

b. CONSUMER-owned containers that are not FOOD-specific may be filled at a water VENDING MACHINE or system.

Section VIII. EQUIPMENT AND UTENSIL HANDLING AND STORAGE

4-49. Handling

Cleaned and SANITIZED EQUIPMENT and UTENSILS WILL be handled in such a manner that the FOOD-CONTACT SURFACES are not contaminated.

4-50. Storage

a. Cleaned and SANITIZED EQUIPMENT, UTENSILS, laundered linens, and SINGLE-SERVICE and SINGLE-USE ARTICLES WILL be stored as follows:

(1) In a clean, dry location.

(2) Where they are not exposed to splash, dust, or other contamination.

(3) At least 6 in (15 cm) above the floor. *However, items that are kept in closed packages may be stored less than 6 in (15 cm) above the floor if on dollies, pallets, racks, and skids used to store or transport large quantities and designed to be moved by hand or by conveniently available EQUIPMENT, such as hand trucks and forklifts.*

(4) In a self-draining position that permits air drying.

(5) Either covered or inverted.

(6) In insulated FOOD containers (FIELD FOOD SERVICE, see chap 9).

b. Cleaned and SANITIZED EQUIPMENT, UTENSILS, laundered LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES may not be stored—

(1) In locker rooms.

(2) In toilet rooms.

(3) In garbage rooms.

(4) In mechanical rooms.

(5) Under sewer lines that are not shielded to intercept potential drips.

(6) Under leaking water lines, including leaking automatic fire sprinkler heads, or under lines on which water has condensed.

(7) Under open stairwells.

(8) Under other sources of contamination.

4-51. Kitchenware and Tableware

a. SINGLE-SERVICE and SINGLE-USE ARTICLES and cleaned and SANITIZED UTENSILS WILL be handled, displayed, and dispensed so that contamination of FOOD- and lip-contact surfaces is prevented.

b. Knives, forks, and spoons that are not prewrapped WILL be presented so that the EMPLOYEES and CONSUMERS, if consumer self-service is provided, only touch the handles. *When inserting bulk-PACKAGED, SINGLE-SERVICE TABLEWARE into holders or wrapping them,*

FOOD SERVICE PERSONNEL WILL wash their hands immediately prior to sorting or wrapping the UTENSILS.

c. SINGLE-SERVICE ARTICLES intended for FOOD- or lip-contact WILL be furnished for CONSUMER self-service with the original individual wrapper intact or from an APPROVED dispenser.

d. Unless SINGLE-SERVICE knives, forks, and spoons are prewrapped or PREPACKAGED, holders WILL be provided to protect these items from contamination.

e. Straws WILL be individually PACKAGED or WILL be dispensed in a sanitary manner.

4-52. Soiled and Clean Tableware

Soiled TABLEWARE WILL be removed from CONSUMER eating and drinking areas and handled so that clean TABLEWARE is not contaminated.

4-53. Preset Tableware

If TABLEWARE is preset—

a. It WILL be protected from contamination by being wrapped, covered, or inverted;

b. Exposed, unused settings WILL be removed when a CONSUMER is seated; or

c. Exposed, unused settings WILL be cleaned and SANITIZED before further use if the settings are not removed when a CONSUMER is seated.

Table 4-1. Utensil Lead Level Limits

Utensil Category	Description	Maximum Lead mg/L
Hot Beverage Mugs	Coffee Mugs	0.5
Large Hollowware	Bowls ≥1.1 L (1.16 qt)	1.0
Small Hollowware	Bowls <1.1 L (1.16 qt)	2.0
Flat Utensils	Plates, Saucers	3.0

CHAPTER 5
SANITARY FACILITIES AND CONTROLS

Section I. WATER SUPPLY

5-1. Water Source and Installation Support*

a. The installation commander WILL provide sufficient DRINKING WATER at each FOOD ESTABLISHMENT through an APPROVED PUBLIC WATER SYSTEM. DRINKING WATER WILL meet the requirements of TB MED 576 for fixed FOOD ESTABLISHMENTS and TB MED 577 for field operations.

b. The water source and system WILL be of sufficient capacity to meet the demands for water of the FOOD ESTABLISHMENT.

5-2. Nondrinking Water*

a. A NONDRINKING WATER supply WILL be used only if its use is APPROVED.

b. If APPROVED, NONDRINKING WATER WILL be used only for nonculinary purposes such as air conditioning nonFOOD EQUIPMENT cooling, fire protection, and irrigation.

5-3. Culinary Purposes

FOOD SERVICE PERSONNEL WILL use only DRINKING WATER for culinary purposes. Except during FIELD FOOD SERVICE operations or exercises, limited services, TEMPORARY FOOD ESTABLISHMENTS, and VENDING MACHINES, adequate quantities of both hot and cold running water under pressure WILL be provided in all areas where FOOD is prepared or where EQUIPMENT, UTENSILS, or containers are washed and or SANITIZED.

5-4. Hot Water

Hot water generation and distribution systems WILL be sufficient to meet the peak hot water demands throughout the FOOD ESTABLISHMENT.[N]

a. At existing FOOD ESTABLISHMENTS using hot water for SANITIZING, the minimum acceptable water temperature for input water to booster heaters and under-the-sink heaters WILL be 140 °F (60 °C). Booster heaters and under-the-sink heaters WILL maintain a SANITIZING rinse temperature of 171 °F (77 °C) for hot water SANITIZING WAREWASHING machines and three-compartment sinks as specified in ¶ 4-43*b*.

b. At new FOOD ESTABLISHMENTS or renovations, capacity and design of booster heaters and under-the-sink heaters SHOULD be determined based on input water temperatures and water using EQUIPMENT requirements.

5-5. Water Under Pressure

Water under pressure WILL be provided to all fixtures, EQUIPMENT, and nonFOOD EQUIPMENT as required for correct operation.

5-6. System Flushing and Disinfection*

A DRINKING WATER system WILL be flushed, disinfected, and tested for chlorine residual before being placed in service after construction, repair, or modification and after any emergency situation, such as a flood, that may introduce contaminants to the system. The MEDICAL COMMANDER or designated representative may require microbiologic testing before operation.

5-7. Surveillance

The MEDICAL COMMANDER or designated representative WILL test—

a. DRINKING WATER at fixed FOOD ESTABLISHMENTS per TB MED 576.

b. Field water per TB MED 577.

5-8. Transportation

All DRINKING WATER, not provided directly by pipe from an APPROVED source to fixed FOOD ESTABLISHMENTS, WILL be transported in a bulk water transport system and WILL be delivered to a closed-water system. Both systems WILL be constructed and operated to protect the water from contamination.

a. The MEDICAL COMMANDER or designated representative WILL inspect water trailers and bulk water transport systems supporting FOOD service operations for cleanliness, integrity, and proper maintenance. The user WILL maintain a copy of the inspection report as specified in TB MED 577.

b. The FOOD ESTABLISHMENT'S PERSON-IN-CHARGE, or his or her designated representative, WILL test for chlorine residuals for FIELD FOOD SERVICE prior to use per FM 21-10-1. The MEDICAL COMMANDER or designated representative WILL specify the minimum chlorine residual. The preventive medicine personnel WILL also test for chlorine residuals during sanitary inspection.

5-9. Bottled Water*

Bottled and packaged DRINKING WATER used or sold in a FOOD ESTABLISHMENT WILL be obtained from an APPROVED source as specified in ¶ 3-3 and handled and stored in a manner to protect it from contamination as specified in chapter 3, section III. Bottled and PACKAGED DRINKING WATER WILL be dispensed only from the original container(s).

Section II. STEAM

5-10. Authorized Use

a. Steam used for cleaning or disinfecting FOOD-CONTACT SURFACES WILL be free from any materials or ADDITIVES other than those ADDITIVES in the concentration allowed in 21 CFR 173.310.

b. Use of heat exchange-type steam generator units that produce steam from DRINKING WATER without the use of BOILER WATER ADDITIVES is authorized.

5-11. Prohibited Use

a. Direct, live-steam cooking of FOODS with steam generated from a central or building boiler is prohibited *due to the difficulty and costs in evaluating steam ADDITIVE levels.*

b. Direct, live-steam injection to heat SANITIZING water in manual WAREWASHING operations is prohibited *due to safety reasons.*

Section III. SEWAGE

5-12. Approved Disposal Systems*

All SEWAGE, including liquid waste from FOOD processing and cleaning, WILL be disposed of through a properly functioning sanitary SEWAGE disposal system.

5-13. Prohibited Disposal Systems

Nonwater-carriage SEWAGE disposal systems are prohibited for fixed FOOD ESTABLISHMENTS, but may be authorized by the MEDICAL COMMANDER or designated representative for use in conjunction with TEMPORARY FOOD ESTABLISHMENTS or FIELD FOOD SERVICE operations.

Section IV. PLUMBING

5-14. General Requirements

The facilities engineer WILL size, install, maintain, and operate plumbing per the applicable plumbing code required by the U.S. Army Corps of Engineers' (USACE) *Architectural and Engineering Instructions Design Criteria,* and TM 5-810-5/AFMAN 32-1070, chapter 4.

5-15. Cross-connection*

There WILL be no cross-connection between the DRINKING WATER supply and any nonDRINKING WATER supply or any other source of pollution that might contaminate the DRINKING WATER supply.

5-16. Backflow and Back Siphon Prevention*

The facilities engineer WILL—

a. Install and maintain the DRINKING WATER system with an air gap or a backflow or back siphonage prevention device which WILL meet American Society of Sanitary Engineering (ASSE) standards for construction, installation, maintenance, inspection, and testing for that specific application and type of device.[N]

b. Install an air gap between the water supply inlet and the flood level rim of the PLUMBING FIXTURE, EQUIPMENT, or nonFOOD EQUIPMENT at least twice the diameter of the water supply inlet and may not be less than 1 in (2.54 cm).

c. Except for properly trapped open sinks, ensure that no direct connection exists between the SEWAGE system and any drains originating from EQUIPMENT in which FOOD, portable EQUIPMENT, or UTENSILS are placed. When a WAREWASHING machine is located within 5 feet (150 cm) of a trapped floor drain, the WAREWASHER waste outlet may be connected directly on the inlet side of a properly vented floor drain trap when permitted by applicable plumbing code.

d. Vent bar and fountain sink traps. *However, when sinks in bars, soda fountains, and counters are located so that traps serving such sinks cannot be*

vented, the sink drains WILL *discharge through an air gap or air break into a floor drain, sink, or hopper that is properly trapped and vented.*

e. Not allow an attached hose to a faucet unless backflow prevention is provided. *Hose bib vacuum breakers cannot be used under situations where continuous pressure (equal pressure on both sides of the unit for prolong periods) exists. Where this condition exists, an* APPROVED *continuous pressure backflow device* WILL *be installed.*

5-17. Grease Traps

The facilities engineer WILL locate grease traps to be easily accessible for cleaning and servicing.

a. In new construction or renovation, grease traps WILL be located outside the building.

b. Grease traps may not be installed inside a building unless APPROVED *by the* MEDICAL COMMANDER *or designated representative during the* FOOD ESTABLISHMENT*'s design review.*

5-18. Food-Waste Grinders and Pulpers

a. FOOD-waste grinders WILL be—

(1) Designed, installed, and maintained per current ASSE standards and applicable plumbing codes.

(2) Provided with an adequate supply of water at a sufficient flow rate to ensure proper functioning of the unit.

(3) Trapped separately from any other fixtures or sink compartments.

(4) Installed to allow access and be EASILY CLEANABLE.

b. FOOD-waste grinders WILL not be connected to discharge through a grease trap or interceptor.

c. Pulping, water extraction systems are authorized for FOOD waste, provided the system is installed and operated in a sanitary manner and meets applicable plumbing codes.

5-19. Floor Drains

Floor drains WILL be installed and maintained as specified in ¶ 6-7.

Section V. TOILET FACILITIES

5-20. Installation

Each FOOD ESTABLISHMENT WILL—

a. Provide adequate toilet facilities as prescribed by 29 CFR 1910.141 and TM 5-810-5/AFMAN 32-1070, chapter 4.

b. Ensure toilets are conveniently located and accessible for use by all FOOD SERVICE PERSONNEL during all hours of operation.

c. Except for carry-out or stand-up type operations, provide adequate, convenient customer toilet facilities.

d. To the maximum extent possible, include separate toilets for customers and staff in all plans for new construction and renovated existing FOOD ESTABLISHMENTS*, except for AAFES fast* FOOD *facilities.*

5-21. Design

a. Toilets and urinals WILL be constructed and installed to be EASILY CLEANABLE. Toilet seats WILL be made of smooth and nonabsorbent material.

b. Toilet rooms located on the PREMISES WILL be completely enclosed and provided with a tight-fitting, self-closing, vermin-proof door that opens inward into the toilet facility. *This requirement does not apply to a toilet room that is located outside a* FOOD ESTABLISHMENT *and does not open directly into the* FOOD ESTABLISHMENT*, such as a toilet room that is provided by the management of a shopping mall.*

c. Toilet rooms WILL not open directly into any area where FOOD is stored, prepared, or served or into EQUIPMENT and UTENSIL washing or storage areas.

d. Wall and floor areas within 1 foot (30 cm) of the front of the urinal lip, 4 feet (120 cm) above the floor, and at least 1 foot (30 cm) to each side of the urinal WILL be waterproofed with a smooth, EASILY CLEANABLE, NONABSORBENT material.

5-22. Fixtures

Toilet facilities and fixtures WILL be kept clean and in good repair. An adequate supply of hand soap, paper towels, and toilet tissue WILL be provided at all times.

5-23. Signs

Signs directing all personnel to wash their hands after using the toilet WILL be conspicuously posted. Multilingual signs WILL be provided when appropriate.

5-24. Ventilation

a. In existing construction, mechanical or natural ventilation WILL be provided to reduce moisture and eliminate irritants and objectionable odors.

b. In new construction, mechanical exhaust ventilation WILL be provided and exhausted to the outdoors. Mechanical ventilation systems WILL be designed to provide at least 10 air changes per hour in all toilet rooms.

Section VI. HANDWASHING FACILITIES

5-25. Location*

All FOOD ESTABLISHMENTS WILL provide—

a. Adequate, conveniently located handwashing facilities for FOOD SERVICE PERSONNEL to permit convenient and expeditious use by all personnel in FOOD preparation, FOOD dispensing, behind or adjacent to serving areas, and WAREWASHING areas, within UTENSIL washing areas, and within toilet rooms or vestibules.

b. Customer facilities to the maximum extent practicable.[N]

5-26. Handwashing Sink Limitation and Restriction

Handwashing lavatories may not be used for purposes other than handwashing. A sink used for FOOD preparation or UTENSIL washing or a service sink or curbed cleaning facility used for the disposal of mop water or similar wastes may not be used as a handwashing lavatory.

5-27. Faucets and Supplies

a. Handwashing sinks WILL provide hot and cold water tempered at 110 °F (43 °C) through a mixing valve or combination faucet.

b. When installed, a self-closing or metering faucet WILL provide a flow of water for at least 15 seconds without the need to reactivate the faucet.

c. Each handwashing lavatory WILL be provided with—

(1) Hand-cleaning liquid, powder, or bar soap.

(2) Individual disposable towels.

(a) Warm air hand dryers may be substituted for disposable towels at lavatories used solely by customers.

(b) Warm air hand dryers WILL not be permitted for hand drying at EMPLOYEE hand sinks.

(3) Waste container.

Section VII. GARBAGE, REFUSE, AND RECYCLABLES

5-28. Receptacles

EQUIPMENT and receptacles used for REFUSE, recyclables, returnables, and garbage WILL meet the following requirements:

a. Receptacles WILL be provided in each area of the FOOD ESTABLISHMENT or PREMISES where REFUSE or garbage is generated or commonly discarded or where recyclables or returnables are placed.

b. Receptacles for REFUSE, recyclables, and returnables and for use with materials containing FOOD residue WILL be—

(1) Durable.

(2) Cleanable.

(3) Insect and rodent resistant.

(4) Leakproof.

(5) Nonabsorbent.

(6) Covered when not in continuous use. *To reduce contamination of the hands of FOOD SERVICE PERSONNEL, the lids SHOULD be left off indoor garbage or REFUSE containers while they are being used. (Use of pedal-operated opening lids is recommended.)*

c. Plastic bags and wet-strength paper bags may be used to line receptacles for storage inside the FOOD ESTABLISHMENT or with closed outside receptacles.

d. Receptacles for REFUSE, recyclables, and returnables used with materials containing FOOD residue and used outside the FOOD ESTABLISHMENT WILL be constructed to have tight-fitting lids, doors, or covers. Receptacles equipped with drain plugs WILL have drain plugs in place during use.

e. EQUIPMENT for REFUSE and recyclables, such as an on-site compactor, WILL be installed so that accumulation of debris and insect and rodent attraction and harborage are minimized and effective cleaning is facilitated around it. Compactor-type trash units WILL be located—

(1) On concrete slabs with drains.

(2) Outside the FOOD ESTABLISHMENTS adjacent to waste access doors, but as far from the FOOD delivery area as possible.

f. With the exception of compactors, bulk collection dumpsters WILL be located more than 50 feet (15 meters (m)) from the FOOD ESTABLISHMENT's entrance doors and adjacent to the receiving area(s).

g. Sufficient containers WILL be provided to hold all garbage and REFUSE between pickup periods.

h. Receptacles, dumpsters, and compactors for REFUSE, recyclables, and returnables WILL be thoroughly cleaned at a frequency established by the MEDICAL COMMANDER or designated representative. Liquid wastes generated by the cleaning operation WILL be disposed of in a SEWAGE system that complies with section III of this chapter. Receptacles, dumpsters, and compactors WILL be cleaned by—

(1) Using a hot, high-pressure water and detergent soap;

(2) Using a high-pressure spray with a self-contained vacuum residue collector; or

(3) Moving the dumpsters to a central location for cleaning.

i. In-place cleaning of dumpsters is prohibited unless they are located on a hardstand with wash down and drainage capabilities.

5-29. Storage

Storage areas for REFUSE, recyclables, and returnables WILL meet the following requirements:

a. Inside storage rooms or areas, outside storage areas or enclosures, and individual receptacles WILL be of sufficient number and capacity to hold REFUSE, recyclables, and returnables that accumulate.

b. Plastic or wet-strength paper bags WILL be tightly SEALED before being placed in outside storage areas or dumpsters. Outside storage of unprotected plastic bags, wet-strength paper bags, or baled units containing garbage or REFUSE is prohibited. *Cardboard or other packaging material not containing garbage or FOOD wastes does not need to be stored in covered containers. Cardboard boxes SHOULD be broken down prior to placement in dumpsters to reduce volume.*

c. Outside storage surfaces for REFUSE, recyclables, and returnables WILL be constructed of nonabsorbent material, such as concrete or asphalt, and WILL be SMOOTH, durable, sloped to drain, kept clean, and maintained in good repair.

d. Inside garbage or REFUSE storage rooms WILL be designed and constructed so that they are SMOOTH, nonabsorbent, and EASILY CLEANABLE.

5-30. Collection and Disposal

Garbage and REFUSE collection WILL be removed from the PREMISES at a frequency APPROVED by the MEDICAL COMMANDER or designated representative. The collection vehicle operator WILL promptly clean up any spillage generated during collection. *Specific collection requirements for waste disposal are contained in AR 420-49 and TM 5-634.*

Section VIII. INTEGRATED PEST MANAGEMENT - FOOD SERVICE

5-31. Introduction

Because of the significant potential for contamination and economic losses resulting from pest infestations of FOOD and FOOD stuffs, the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE and the facilities engineer WILL—

a. Use effective measures to prevent pests from gaining access to and harboring in FOOD ESTABLISHMENTS and to detect infestations rapidly in order to limit their spread.

b. Use integrated pest management (IPM) principles in selecting and recommending pest prevention and control measures. See AR 40-5, TM 5-632/NAVFAC MO-310/AFM 9-16, and USACHPPM TG 102 for additional guidance. The success of an IPM program depends on the communication and cooperation between FOOD service, medical, veterinary, and pest management personnel.

c. Place management emphasis on sanitation, harborage reduction, exclusion, and other nonchemical control measures.

5-32. Structural Design

During design and design review, the facilities engineer and the MEDICAL COMMANDER or designated representative WILL place emphasis on—

a. Identifying and eliminating areas that could lead to the possible entrance and harborage of pests.

b. Pretreating areas of potential harborage with APPROVED insecticides and pesticides as specified in ¶ 11-5.

5-33. Surveillance Inspections

The MEDICAL COMMANDER or designated representative—

a. Is responsible for pest surveillance of FOOD ESTABLISHMENTS and operations.

b. Records and maintains on file the results of pest surveillance inspections.

c. Reports results to installation pest management.

d. Recommends appropriate nonchemical and chemical control methods to the FOOD ESTABLISHMENT'S *PERSON-IN-CHARGE.*

5-34. Stock Handling Practices

a. The FOOD ESTABLISHMENT'S PERSON-IN-CHARGE WILL minimize the presence of insects, rodents, and other pests by—

(1) Routinely inspecting incoming shipments of FOOD and supplies;[N]

(2) Using proper stock rotation, "first in, first out" or manufacturer "use by" date, to prevent older products from becoming infested and to reduce the potential for the spread of pests from already infested products.[N]

(3) Routinely inspecting the PREMISES for evidence of pests.[N]

(4) Eliminating harborage conditions.

(5) Notifying facilities engineers to remove dead or trapped birds, insects, rodents, and other pests from control devices and the PREMISES at a frequency that prevents their accumulation, decomposition, or the attraction of other pests.

b. Veterinary personnel WILL *report pest damage of stored products per guidance in AR 40-657/ NAVSUPINST 4355.4F/MCO P10110.31G.*

5-35. Premises Pest Exclusion

The FOOD ESTABLISHMENT'S PERSON-IN-CHARGE WILL—

a. Eliminate heavy weed growth within 25 feet (750 cm) of the FOOD ESTABLISHMENT.

b. Stack surplus pallets away from the buildings.

c. Locate exterior lights so they do not attract insects.

d. Eliminate all holes in or under walls, ceilings, floors, and utilities and all cracks around doorframes. Seal with caulk or quick-drying cement or other APPROVED material.

e. Install self-closing, tight-fitting, outward-opening doors on FOOD ESTABLISHMENTS. *Doors* SHOULD *be closed when not in use.*

f. Install air curtains (APPROVED, controlled air curtains may be used) so that pests are blown away from and not into the building entrances. (See NSF International Standard 37 for guidance.) Air velocity, measured 3 feet (90 cm) above the floor, WILL be at least—

(1) 600 feet per minute (fpm) for personnel-only entrances.

(2) 1,600 fpm for service entrances.

g. Seal plumbing and electrical line entrances where lines penetrate the building.

h. Screen all operable windows and air exhaust and intake openings.

(1) *Use metal screening material of not less than 16-mesh to the inch.*

(2) *Use expanded metal mesh or $^1/_4$-in (6.35-mm) mesh hardware cloth where rodent entry is a problem.*

i. Keep all loading docks and open area(s) underneath free of debris, excess pallets, and packing material.

5-36. Nonchemical Control Methods

a. The FOOD ESTABLISHMENT'S PERSON-IN-CHARGE and the facilities engineers may, when authorized by the MEDICAL COMMANDER or designated representative, employ the following nonchemical pest controls to prevent, reduce, or eliminate the presence of insects, rodents, and other pests:

(1) Installing snap traps around the inside perimeter of the FOOD ESTABLISHMENT and along runways. (Windup traps are preferred for small to medium size rodents.)

(2) Installing glue boards, primarily used as a screening tool, in place of or in conjunction with snap or windup traps.

(3) Using repellent glues, bird netting, or porcupine wire to keep birds off roosting points.

(4) Installing hanging sticky flypaper in nonFOOD areas (for example, storage areas, vestibules). Hanging sticky flypaper is prohibited for use in FOOD preparation, serving, or dining areas. Sticky flypaper scented with pheromone is more effective, but care WILL be used in its placement. Because it is so effective in attracting insects (flies), it SHOULD be hung between openings or entrances where insects can enter and the area(s) you are trying to protect. Do NOT place near entrances to food process areas.

(5) Treating portable FOOD carts and dish dispensers as specified in the Armed Forces Pest Management Board's (AFPMB) Technical Information Memorandum (TIM) No. 20.

(6) Using insect control devices to electrocute or stun flying insects. The insect control devices WILL be installed so that—

(a) They are not located over FOOD preparation areas.

(b) They are positioned so that dead insects and insect fragments are prevented from being impelled onto or fall on FOOD, FOOD-contact surfaces, or clean EQUIPMENT and UTENSILS.

(c) They have an escape-resistant tray that is emptied at least weekly.

(d) They are wall-mounted type only.

(e) The center of the device is not more than 3

feet (90 cm) above the floor and no closer than 5 feet (150 cm) from exposed FOODS, FOOD-contact surfaces, or clean EQUIPMENT and UTENSILS.

(f) They are accepted, certified, listed, labeled, or otherwise determined to be safe by a nationally recognized testing laboratory acceptable to TSG.

b. Light traps are not effective for insect control and are not recommended for use in FOOD ESTABLISHMENTS. Light traps are useful for monitoring insect populations and may be placed in FOOD service warehouses to monitor stored product pest populations.

c. There are some USDA- and FDA-approved fly control systems for use in FOOD service areas. Use of these devices WILL be monitored to ensure they are installed properly and serviced at the required frequency. By virtue of their design and function, they do not create a health risk in FOOD processing areas.

(1) AFPMB TIM 25 contains information on the appropriate use and location of devices for the electrocution of flying insects.

(2) The DOD Pest Management Materiel, Other Than Pesticides Listing, provides an up-to-date listing of recommended devices that have been reviewed by a committee of pest management professionals before being added to the system.

(3) Contact the installation IPM control coordinator for more details.

d. Ultrasonic and electromagnetic devices WILL not be used. *These devices have not been scientifically proved to repel pests and are not APPROVED by the Armed Forces Pest Management Board.*

5-37. Chemical Control Methods*

A combined effort between the MEDICAL COMMANDER or designated representative, FOOD SERVICE PERSONNEL, and pest management personnel is imperative to ensure that chemical use in pest management is efficient and effective.

a. RESTRICTED USE PESTICIDES WILL be applied only by an applicator certified as specified in ¶ 11-5*b*.

b. Chemical pest control measures WILL be used only as a supplement to nonchemical control measures and WILL be applied according to LAW, manufacturer's use directions, and chapter 11 of this bulletin.

c. FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES WILL be protected from contamination as specified in ¶ 11-4.

d. Pesticide application in nonFOOD areas may occur based on the pest surveillance inspections conducted by the local MEDICAL COMMANDER or designated representative.

e. Residual insecticides WILL not be used to treat FOOD carts used by healthcare FOOD ESTABLISHMENTS. Carts treated with nonresidual pesticides SHOULD be kept out of service for a minimum of 24 hours, then steam cleaned prior to use.

f. Chemical, physical, and other mechanisms used for insect and rodent population control are no substitute for a comprehensive and well implemented IPM program. (Cleaning, organizing, rotating, building maintenance, etc., WILL be diligently executed daily for a successful outcome.)

Section IX. LINENS

5-38. Clean Linens and Clothes Storage

a. Clean LINENS and clothes WILL be stored in a clean, dry location where they are not exposed to splash, dust, or other contamination. They WILL be stored at least 6 in (15 cm) above the floor.

b. An adequate supply of clean LINENS, coats, aprons, other required work uniforms, cleaning cloths, and similar laundered items WILL be provided.

5-39. Soiled Linens and Clothes Storage and Laundering

a. Soiled LINENS and clothes WILL be stored in clean, nonabsorbent containers or washable laundry bags and kept separate from clean LINEN, and away from FOOD storage or FOOD preparation and serving areas until removed for laundering.

b. Soiled LINENS and clothes WILL not be stored in cold FOOD storage areas or rooms.

5-40. Laundering of Linens

a. Cloth gloves used for raw ANIMAL FOODS; LINENS and cloth napkins used to line containers for FOOD service, as specified in ¶¶ 3-26 and 3-28; and wiping cloths WILL be laundered before each use.

b. Use and storage of wiping or cleaning cloths WILL be as specified in ¶ 4-36.

c. Laundry facilities in a FOOD ESTABLISHMENT are restricted to the washing and drying of LINENS, cloths, uniforms, and aprons necessary to the operation. Laundry EQUIPMENT WILL consist of a mechanical clothes washer and dryer installed as required by chapter 4, section V.

d. Laundry facilities located on the PREMISES for the purpose of general laundering, such as the LINENS

for institutions providing boarding and lodging, may also be used for laundering FOOD ESTABLISHMENT *items.*

e. If on-PREMISES laundering is limited to wiping cloths intended to be used moist, a mechanical clothes washer WILL be provided and the wiping cloths WILL be stored in a SANITIZING solution after laundering. *Laundry facilities are not required if* LINENS *and uniforms are commercially laundered outside the* FOOD ESTABLISHMENT.

f. Laundry operations WILL use commercial laundry detergents and products and follow commercial washing/drying cycles and temperatures.

CHAPTER 6

CONSTRUCTION AND MAINTENANCE OF FOOD ESTABLISHMENTS

Section I. CRITERIA

6-1. Standards and Design

The facilities engineer WILL design, construct, and maintain FOOD ESTABLISHMENTS at fixed installations for that purpose only. Standards and design criteria are provided in USACE's *Architectural and Engineering Instructions Design Criteria.* Specific requirements for FOOD ESTABLISHMENTS are provided by this bulletin (¶¶ 1-6*a*(3) and *b*(6)). The term "facilities engineer" as used in this chapter includes all personnel (including contractors) responsible for construction, renovation, or maintenance of the FOOD ESTABLISHMENT.

6-2. Paint

Lead base paint containing pesticides WILL not be used in FOOD ESTABLISHMENTS.

Section II. FLOORS

6-3. Construction and Maintenance

a. Floors and floor coverings of all areas where FOOD ESTABLISHMENT operations are conducted (including walk-in refrigeration units, EMPLOYEES' dressing and locker areas, toilet rooms, vestibules, and other similar areas) WILL be designed, constructed, installed, and maintained so that they are—

(1) SMOOTH with SMOOTH junctures.

(2) Nonabsorbent.

(3) Durable.

(4) EASILY CLEANABLE (such as quarry tile, SEALED ceramic tile, or other APPROVED material).

b. Binding cement, mortar, or grout (epoxy) jointed materials WILL be waterproof, grease proof, and corrosion resistant.

c. In FOOD ESTABLISHMENTS in which cleaning methods other than water flushing are used for cleaning floors, the floor and wall junctures WILL be coved and closed to no larger than 1/32 in (1 mm).

d. The floors in FOOD ESTABLISHMENTS in which water flush cleaning methods are used WILL be provided with drains and graded to drain, and the floor and wall junctures WILL be coved and sealed.

e. Anti-slip floor coverings or applications may be used for safety reasons.

6-4. Carpeting

The MEDICAL COMMANDER or designated representative may authorize carpeting in administrative and customer dining areas only. If used, carpeting WILL be—

a. Closely woven and EASILY CLEANABLE.

b. Properly installed and maintained in good repair as specified in ETL 1110-3-323.

6-5. Mats and Duckboards

a. Mats and duckboards WILL be designed and constructed to be removable and EASILY CLEANABLE. All mats and duckboards procured subsequent to publication of this bulletin WILL meet NSF International Standard 52 requirements.

b. Wooden duckboards or pallets are prohibited for use as storage racks. *However, wood pallets and racks may be used for storage in FIELD or TEMPORARY FOOD ESTABLISHMENTS as specified in ¶ 4-30.*

6-6. Prohibited Floor Coverings

a. Except as specified in ¶ 6-8*b*, the use of sawdust, wood shavings, peanut hulls, granular salt, baked clay, diatomaceous earth, or other similar material is prohibited as a floor covering.

b. Clean craft (butcher) paper or USDA-APPROVED sawdust substitutes may be authorized by the MEDICAL COMMANDER or designated representative for use in butcher shops of FOOD ESTABLISHMENTS.

6-7. Floor Drains

a. Floor drains WILL be—

(1) Properly installed and trapped.

(2) Located to facilitate drainage in the following areas:

(a) Floors that are water-flushed for cleaning.

(b) Floors that receive discharges of water or other fluid waste from EQUIPMENT.

(c) Areas where pressure spray methods for cleaning EQUIPMENT are used.

b. Where EQUIPMENT discharges onto the floor, a drain WILL be provided with a sump and removable protective grate to receive the waste. Such floors WILL be constructed only of materials as specified in ¶ 6-3 and graded to drain. *For additional guidance, see TM 5-810-5/AFMAN 32-1070, chapter 4.*

6-8. Cleaning Floors, Dustless Methods

a. Except as specified in ¶ *b* below, only dustless methods of cleaning WILL be used, such as wet cleaning, vacuum cleaning, mopping with treated dust mops, or sweeping using a broom and dust-arresting compounds.

b. Spills or drippage on floors that occur between normal floor cleaning times may be cleaned—

(1) *Without the use of dust-arresting compounds; and*

(2) *In the case of liquid spills or drippage, with the use of a small amount of absorbent compound, such as sawdust, kitty litter, or diatomaceous earth, applied immediately before spot cleaning.*

Section III. WALLS AND CEILINGS

6-9. Construction

a. Walls and ceiling (including doors, windows, skylights, and similar closures) of all areas where FOOD ESTABLISHMENT operations are conducted (including walk-in refrigeration units, EMPLOYEES' dressing and locker areas, toilet rooms, vestibules, and other similar areas) WILL be designed, constructed, and installed so they are—

(1) SMOOTH with SMOOTH junctures.

(2) Nonabsorbent.

(3) Durable.

(4) Light-colored.

(5) EASILY CLEANABLE (such as quarry tile, SEALED ceramic tile, or other APPROVED material).

b. Binding cement, mortar, or grout (epoxy) jointed materials WILL be waterproof, grease proof, and erosion resistant.

c. Gypsum wallboard or similar pervious material WILL not be used—

(1) On steel studs in FOOD preparation, serving, storage, SELF-SERVICING AREAS; WAREWASHING and pot and pan washing areas; toilet areas; or other areas subject to water damage or high humidity.

(2) In areas used by mobile FOOD service EQUIPMENT.

d. Water-resistant gypsum wallboard protected by a cement backerboard or green board and ceramic tile may be used to sheath stud walls.

e. Except in areas used only for dry storage, concrete, porous blocks, or bricks used for indoor wall construction WILL be finished and SEALED to provide a SMOOTH, nonabsorbent, EASILY CLEANABLE surface.

f. Acoustical materials used in areas exposed to grease or high humidity WILL be constructed and installed to provide a reasonably nonabsorbent, EASILY CLEANABLE surface. These materials require periodic replacement to maintain sanitary standards.

g. Exposed corners of glazed structural units, concrete masonry unit partitions, and columns subject to damage from portable FOOD service EQUIPMENT SHALL be protected through use of corner protective guards. These guards SHOULD extend at least 72 in (180 cm) above the finished floor.

6-10. Maintenance

Maintain walls and ceilings, including doors, windows, skylights, and similar closures, in good repair. Asbestos material WILL be handled per TB MED 513.

6-11. Exposed Construction

Studs, joists, and rafters, or other unfinished building materials WILL not be exposed. However, if exposed in areas outside the FOOD ESTABLISHMENT operations (including walk-in refrigeration units, EMPLOYEES' dressing and locker areas, toilet rooms, vestibules, and other similar rooms or areas), they WILL be finished to provide a SMOOTH, EASILY CLEANABLE surface.

6-12. Attachments

Light fixtures, vent covers, wall-mounted fans, poster boards, blackboards, decorative materials, and similar EQUIPMENT attached to walls and ceilings WILL be—

a. EASILY CLEANABLE.

b. Maintained in good repair.

c. Mounted so as to minimize vermin harborage or entrance to the unit.

Section IV. UTILITY AND SERVICE LINE INSTALLATION

6-13. Openings Through Walls, Floors, and Ceilings

Openings through horizontal and vertical surfaces to allow passage of utility and service lines WILL be SEALED to prevent the passage of moisture, insects, rodents, or birds.

6-14. Exposed Utility and Service Lines

a. Whenever feasible—

(1) Exposed utility and service lines WILL be kept to a minimum.

(2) *Connections from the ceiling as opposed to through the floor or wall SHOULD be used.*

b. Where exposed pipes and service lines are required and do not provide a safety hazard, install them at least 6 in (15 cm) above the floor and 1 in (2.54 cm) from the wall and adjacent pipe(s) to promote cleaning.

c. In new or renovated FOOD ESTABLISHMENTS, utility and service lines are prohibited on walls, floors, or ceilings in walk-in refrigeration units, FOOD preparation areas, EQUIPMENT washing and UTENSIL washing areas, toilet rooms, and vestibules.

d. Wall and ceiling coverings WILL be designed and constructed so that utility service lines and pipes are not unnecessarily exposed. If exposed utility service lines and pipes are necessary, they WILL be installed so as not to obstruct or prevent cleaning of the walls.

e. Floors and floor coverings WILL be designed and constructed so that utility service lines and pipes are not unnecessarily exposed.

(1) If exposed utility service lines and pipes are necessary, they WILL be installed so as not to obstruct or prevent cleaning of the floors or floor coverings.

(2) Exposed horizontal utility service lines and pipes may not be installed on the floor.

Section V. CLEANING FACILITIES AND PREMISES

6-15. Repair and Cleaning Frequency

The PHYSICAL FACILITIES, including PREMISES, WILL be—

a. Maintained in good repair and free of items that are unnecessary to the operation or maintenance of the FOOD ESTABLISHMENT, such as EQUIPMENT that is nonfunctional or no longer used.

b. Cleaned as often as necessary to keep them clean. Cleaning WILL be done during periods when the least amount of FOOD is exposed, such as after closing. Only dustless cleaning methods, such as vacuum cleaning (with micro filtration on the exhaust) or wet cleaning WILL be used.

6-16. Custodial and Maintenance Facilities*

a. The use of lavatories, FOOD UTENSIL or EQUIPMENT washing sinks, or FOOD preparation sinks is prohibited for—

(1) Cleaning of mops or similar wet-floor cleaning tools.

(2) Disposing of mop water or similar LIQUID WASTE.

(3) Cleaning of maintenance tools.

(4) Preparation or holding of maintenance materials.

b. In new or renovated FOOD ESTABLISHMENTS, at least one utility sink or curbed cleaning facility drained to the sanitary sewer WILL be provided.

c. After use, mops WILL be stored head down in mop racks to facilitate air drying without soiling walls, EQUIPMENT, or supplies.[N]

d. Maintenance EQUIPMENT, supplies, and tools, such as brooms, mops, vacuum cleaners, and similar items, WILL be—

(1) Cleaned before storage and then stored in a manner that does not contaminate FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES.[N]

(2) Stored in an orderly manner that facilitates cleaning the area used for storing the maintenance tools.[N]

Section VI. LIGHTING

6-17. Lighting Intensity

The minimum light intensity WILL be—

a. 50 foot-candles of light on all FOOD preparation surfaces and at EQUIPMENT or UTENSIL washing work levels.

b. 20 foot-candles of light in UTENSIL and EQUIPMENT storage areas; reach-in and under-counter refrigerators; lavatory and toilet areas; dining areas and CONSUMER self-service areas, such as buffets and salad bars; and during cleaning operations.

c. 10 foot-candles of light at a distance of 30 in (75 cm) above the floor in walk-in refrigeration units and dry FOOD storage areas.

6-18. Protective Shielding

a. Light bulbs WILL be shielded, coated, or otherwise shatter-resistant in areas where there is exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; or unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES.

b. Shielded, coated, or otherwise shatter-resistant bulbs need not be used in areas used only for storing FOOD in unopened packages, if—

(1) The integrity of the packages cannot be affected by broken glass falling onto them, and

(2) The packages are capable of being cleaned of debris from broken bulbs before the packages are opened.

c. An infrared or other heat lamp WILL be protected against breakage by a shield surrounding and extending beyond the bulb so that only the face of the bulb is exposed.

Section VII. VENTILATION

6-19. Introduction

a. All WAREWASHING and pot and pan washing areas; FOOD preparation, processing, and serving areas; dressing or locker rooms; toilet rooms; and indoor garbage or REFUSE storage areas WILL be ventilated to avoid excessive heat, steam, condensation, obnoxious odors, smoke, and fumes. Heating, ventilation, and air conditioning WILL be designed and installed so that make-up air intake and exhaust vents do not cause contamination of FOOD, FOOD-CONTACT SURFACES, EQUIPMENT, or UTENSILS.

b. An exhaust ventilation hood system WILL be provided over all cooking EQUIPMENT that produces excessive smoke, grease-laden vapors, or odors (such as deep fat fryers, ranges, griddles, and broilers). Ventilation hoods and devices WILL be designed to keep grease and condensate from dripping into FOOD or onto FOOD-CONTACT SURFACES, EQUIPMENT, or UTENSILS.

c. All cooking EQUIPMENT producing steam condensate but not producing smoke or grease-laden vapors, if not adequately controlled by general dilution ventilation, WILL have a local exhaust ventilation system exhausting to the outdoors.

d. Local exhaust ventilation systems and attendant fire protection as specified in NFPA Standard 96 WILL be installed for all cooking EQUIPMENT producing smoke or grease-laden vapor (deep fat fryer, ranges, griddles, and broilers).

e. When vented to the outside, ventilation systems may not create a public health HAZARD or nuisance or unlawful discharge.

f. FOOD ESTABLISHMENTS located in buildings served by a common building ventilation system WILL exhaust all air from preparation, WAREWASHING, and serving lines to the outdoors and not recirculate.

6-20. Exhaust Rates

Mechanical ventilation WILL be of sufficient capacity to keep rooms free of excessive heat, steam, condensation, vapors, obnoxious odors, smoke, and fumes, and to capture and remove grease.

a. Minimum exhaust rates for WAREWASHING areas are—

(1) Not less than 20 air changes per hour; or

(2) As required by USACE's *Architectural and Engineering Instructions Design Criteria*; or

(3) As recommended by the WAREWASHING manufacturer. *Exhaust WILL provide the capture velocity recommended by the dishwashing machine manufacturer.*

b. Exhaust ventilation hoods WILL meet the following requirements:

(1) Existing hoods WILL meet or be modified to meet NFPA Standard 96.

(2) The captured velocity (V), air flow at the cooking surface, adequately entrains particles in the air stream and draws contaminated air into the hood at a velocity listed in table 6-1, located at the end of this chapter.

c. EQUIPMENT not requiring hoods or local exhaust systems (unless deemed necessary by the MEDICAL COMMANDER or designated representative or fire safety representative) include—

(1) Hot-holding units.

(2) Chemical dishwashing and glassware machines.

(3) Coney Island grills.

(4) Under-the-counter hot water dishwashing.

(5) Pretzel machines.

(6) Popcorn machines.

(7) Enclosed electric (300 °F (148 °C) maximum) ovens.

6-21. Filters on Grease Removal Devices

a. Filters on grease removal devices WILL be—

(1) Tight fitting and firmly held in place.

(2) Easily accessible and removable for cleaning or replacement if not designed to be CLEANED-IN-PLACE.

(3) Installed at an angle not less than 45 degrees from the horizontal.

(4) Equipped with a drip tray beneath the lower edge of the filters.

(5) Protected by a fire suppression system.

b. If a collection container is attached to the drip tray, it WILL be enclosed, have a capacity of 1 gallon or less, and be cleaned weekly.

6-22. Cleaning Grease Removal Devices

Exhaust and ventilation hoods, grease removal devices, fans, ducts, and other appurtenances WILL be cleaned at frequent intervals to prevent accumulation of grease, dirt, or other contaminants. Only APPROVED cleaning solvents WILL be used. Flammable solvents or other flammable cleaning products are strictly prohibited for cleaning use.

Section VIII. DRESSING ROOMS, LOCKERS, AND PREMISES

6-23. Designated Dressing Rooms and Locker Areas

a. If EMPLOYEES routinely change clothes within the FOOD ESTABLISHMENT, designated dressing rooms or dressing areas WILL be provided.

b. Lockers or other suitable facilities WILL be provided for the orderly storage of EMPLOYEES' clothing and other possessions.

c. Dressing rooms, lockers, or other suitable facilities WILL be located in a designated room or area where contamination of FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES cannot occur. *Dressing areas and lockers may be located where completely packaged FOOD or packaged SINGLE-SERVICE ARTICLES are stored.*

6-24. General Premises

The general premises of all FOOD ESTABLISHMENTS WILL meet the following requirements:

a. Perimeter walls and roof of a FOOD ESTABLISHMENT WILL effectively protect the ESTABLISHMENT from the weather and the entry of insects, rodents, and other animals.

b. If windows or doors are kept open for ventilation or other purposes, the openings WILL be protected against the entry of insects and rodents as specified in ¶ 5-35.

c. Exterior walking and driving surfaces WILL be graded to drain and WILL be surfaced with materials that minimize dust, prevent muddy conditions, and facilitate maintenance.

d. FOOD ESTABLISHMENTS and all parts of property used in connection with their operation WILL be kept free from litter.

e. Only articles necessary for the operation and maintenance of the FOOD ESTABLISHMENT may be stored on the premises.

f. Traffic of unauthorized PERSONS through the FOOD preparation, FOOD storage, and WAREWASHING areas is prohibited.

g. Use of exterior hoses and hose bibs for washing privately owned vehicles is prohibited unless APPROVED by the MEDICAL COMMANDER or designated representative and no unsanitary conditions(s) develop.

6-25. Living Areas

a. Except as specified in ¶ *c* below, a private home, a room used as living or sleeping quarters, or an area directly opening into a room used as living or sleeping

quarters may not be used for conducting FOOD ESTABLISHMENT operations.

b. Except as specified in ¶ *c* below, living or sleeping quarters located on the PREMISES of a FOOD ESTABLISHMENT WILL be separated from rooms and areas used for FOOD ESTABLISHMENT operations by complete partitioning and solid self-closing doors.

c. FCC homes are excluded from this requirement.

6-26. Live Animals*

Live animals may not be allowed on the PREMISES of FOOD ESTABLISHMENTS, except as specified in ¶¶ *a* through *c* below and if the contamination of FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES does not result.

a. Edible FISH or decorative FISH in aquariums, SHELLFISH or crustacean on ice or under refrigeration, and shellfish and crustacean in display tank systems.

b. Patrol dogs accompanying police or security officers in offices and dining, sales, and storage areas, and sentry dogs running loose in outside fenced areas. Patrol dogs WILL not accompany security or police personnel in dining areas unless the personnel are on official, authorized business.

c. In areas that are not used for FOOD preparation, such as dining and sales areas, SUPPORT ANIMALS (such as guide dogs) that are trained to assist an EMPLOYEE or other PERSON who is handicapped, are controlled by the handicapped EMPLOYEE or PERSON, and are not allowed to be on seats or tables.

6-27. Plants

a. Live plants are only allowed in the dining areas and retail sale areas of FOOD ESTABLISHMENTS provided they do not contaminate FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES.

b. Decorative artificial plants are permitted in non-FOOD preparation areas of FOOD ESTABLISHMENTS provided they are clean and do not provide a harborage area for pests.

Table 6-1. Captured Velocity

Captured Velocity (V)	Location and Equipment
V = 50 fpm	Non-grease producing equipment (kettles, ranges, small griddles)
V = 75 fpm	Grease producing equipment (fryers, pressure fryers, griddles)
V = 150 fpm	High heat producing equipment (char broilers, upright broilers)

CHAPTER 7
MOBILE FOOD ESTABLISHMENTS

Section I. GENERAL PROVISIONS

7-1. Training

a. The PERSON-IN-CHARGE of mobile FOOD ESTABLISHMENTS and the fixed servicing FOOD ESTABLISHMENT, and all FOOD EMPLOYEES WILL comply with training requirements as specified in chapter 2, section V.

b. The supervisor for one or more limited-menu FOOD ESTABLISHMENTS WILL be designated as the PERSON-IN-CHARGE of the limited-menu units and WILL comply with training requirements as specified in ¶ 2-18. Individual FOOD EMPLOYEES operating the limited-menu mobile units WILL receive training appropriate to the menu served and FOOD ESTABLISHMENTS and EQUIPMENT used.

7-2. Requirements

Mobile FOOD ESTABLISHMENTS are enclosed trailer, van, pushcarts, recreational vehicles, or similar enclosed mobile FOOD units that are transported from site to site for the purpose of providing FOOD to CONSUMERS. Requirements set forth in this chapter apply to all mobile FOOD ESTABLISHMENTS. *Exempted from this definition are FIELD FOOD SERVICE establishments. The MEDICAL COMMANDER or designated representative may impose additional requirements to protect against health HAZARDS related to the conduct of the FOOD ESTABLISHMENT as a mobile FOOD operation and may prohibit the sale of some or all PHF. When no HAZARD SHALL result, the MEDICAL COMMANDER or designated representative may waive or modify the requirement of this chapter relating to PHYSICAL FACILITIES.*

7-3. Pre-approval Inspections

The MEDICAL COMMANDER or designated representative WILL review and APPROVE mobile FOOD ESTABLISHMENTS prior to operation on military installations. The review process WILL include a menu review/risk analysis for each mobile FOOD ESTABLISHMENT and a plan review of facilities and EQUIPMENT provided on board each mobile unit. Following approval, the mobile FOOD ESTABLISHMENT WILL be inspected at a frequency as specified in chapter 12. The PERSON-IN-CHARGE of the mobile FOOD ESTABLISHMENT WILL provide the MEDICAL COMMANDER or designated representative the following information for review 14 days prior to operation:

a. Intended menu and anticipated volume of FOOD to be stored, prepared, sold, or served.

b. Proposed layout of mobile unit and construction materials.

c. EQUIPMENT listing (for example, WAREWASHING EQUIPMENT, refrigerated and dry storage units, and SINGLE-SERVICE, SINGLE-USE ARTICLES).

d. Number of FOOD handling EMPLOYEES, PERSONS-IN-CHARGE, and supervisors.

e. A copy of the written agreement with fixed servicing FOOD ESTABLISHMENT for off-site preparation and packaging of APPROVED FOODS.

f. All FOOD service EQUIPMENT WILL meet NSF International Standards (see chap 4), and FOOD carts WILL meet NSF International Standard 59.

7-4. General Structural Requirements

a. Mobile FOOD ESTABLISHMENTS WILL be completely enclosed and constructed of weather-resistant materials that protect the interior from the weather and windblown dust and debris.

b. The floors, floor coverings, walls, wall coverings, and ceilings WILL be designed, constructed, and installed so that they are SMOOTH, nonabsorbent, and EASILY CLEANABLE.

c. Protective screens or movable windows WILL be provided for customer service windows and openings.

d. All FOOD-CONTACT SURFACES, EQUIPMENT, and UTENSILS WILL be constructed from materials that are safe, durable, CORROSION-RESISTANT, nonabsorbent, and EASILY CLEANABLE as specified in chapter 4.*

e. A handwashing sink with hot and cold running water, hand soap, and paper towels WILL be provided in each mobile FOOD ESTABLISHMENT. *The hand washing sink may be—*

(1) *A temporary handwashing setup comprised of a minimum of two 2-gallon insulated containers (each with a spigot) and a catch basin. One of the containers WILL be filled with hot water at 110 °F (43 °C) or higher; or*

(2) *A single, 5-gallon insulated container APPROVED by the MEDICAL COMMANDER or designated representative for limited use, provided the washwater temperature can be maintained at 110 °F (43 °C) or higher during FOOD preparation, servicing, and cleaning.*

f. A three-compartment WAREWASHING sink with drain board WILL be provided in mobile FOOD ESTABLISHMENTS for cleaning and sanitizing EQUIPMENT and UTENSILS. *A WAREWASHING sink is not required if the mobile FOOD ESTABLISHMENT—*

(1) *Operates out of a fixed servicing FOOD ESTABLISHMENT that has WAREWASHING facilities, or*

(2) Has adequate areas to store soiled EQUIPMENT in vermin- proof containers; *and returns daily to the fixed servicing FOOD ESTABLISHMENT for WAREWASHING.*

g. A mechanical ventilation system, as specified in chapter 6, section VII, consisting of a metal hood with removable, metal, grease-collecting filters WILL be provided over all cooking EQUIPMENT producing smoke, steam, or grease vapors located within enclosed areas.

Section II. FOOD

7-5. General Food Requirements

a. FOOD prepared in the mobile FOOD ESTABLISHMENT or from an APPROVED fixed FOOD ESTABLISHMENT supporting a mobile FOOD ESTABLISHMENT WILL be obtained from APPROVED sources as specified in ¶¶ 3-3 and 3-4.*

b. FOOD preparation, storage, transport, and service on mobile FOOD ESTABLISHMENTS WILL be processed, handled, and stored per all requirements set forth in chapter 3.

c. Dry storage (semi-perishable) FOOD WILL be stored 6 in (15 cm) above the floor on NSF International listed pallets or shelving and be protected from contamination. Wood pallets are prohibited.

d. PHF WILL be stored, cooked, held, and reheated to the proper temperatures as specified in chapter 3. Adequate cold- or hot-holding storage units WILL be provided to maintain PHF at the required temperature of 40 °F (4.4 °C) or below for chilled items, 0 °F (-18 °C) or less for FROZEN items, and 140 °F (60 °C) or higher for hot items. The MEDICAL COMMANDER or designated representative may approve the substitution of ice chest cold storage units for refrigerated storage provided temperature requirements are met.

e. The PERSON-IN-CHARGE WILL monitor and verify proper FOOD cooking, cooling, and cold- or hot-holding temperatures of PHFs at a minimum of every 2 hours. In addition, FOOD temperatures at the time of receipt WILL be monitored and verified. *Temperature monitoring may be accomplished with calibrated bimetallic thermometers, thermocouples, or dataloggers.*

7-6. Limited-menu Mobile Food Establishments

Limited-menu mobile FOOD ESTABLISHMENTS—

a. WILL comply with all requirements of this chapter. Items normally served from a limited menu include PACKAGED popcorn and candies, soft drinks and limited packaged baked goods (for example, donuts and rolls.) Hot dogs, frankfurters, and precooked sausages that are prepared on-site and are held and dispensed at the required temperatures using only SINGLE-SERVICE, SINGLE-USE ARTICLES may be served. *Items not included on a limited menu are products that require extensive handling or preparation and have added toppings.*

b. May serve PHFs and BEVERAGES, from APPROVED sources, that are—

(1) Held at 40 °F (4.4 °C) or less, or 140 °F (60 °C) or above at all times as specified in ¶ 3-54.*

(2) Individually wrapped or protected from contamination as specified in chapter 3, section III.*

(3) Individual packages date marked as specified in ¶¶ 3-55 and 3-56*.

c. Are exempt from having—

(1) *Water and waste water systems.*

(2) *Fixed cleaning and sanitizing WAREWASHING EQUIPMENT, if this is made available at the fixed servicing FOOD ESTABLISHMENT for off-site preparation and packaging of APPROVED FOODS.*

7-7. Beverages

Mobile FOOD ESTABLISHMENTS—

a. WILL dispense or serve only nonPOTENTIALLY HAZARDOUS BEVERAGES (such as water, coffee, tea, or sodas) from individual containers, covered urns, or other similarly protected systems. Use of dippers are prohibited.

b. May dispense POTENTIALLY HAZARDOUS BEVERAGES, including milk, in individual single-serving containers, provided the mobile FOOD ESTABLISHMENT is equipped to prepare and maintain POTENTIALLY HAZARDOUS BEVERAGES at SAFE TEMPERATURES and to protect them from contamination.

7-8. Ice

a. Ice intended for CONSUMER use WILL originate from an APPROVED source and WILL be—

(1) Dispensed from self-service, automatic ice dispensing machines; or

(2) Placed in cleaned and sanitized self-draining container (s) and self-service dispensers where cleaned

and sanitized scoops, tongs, or other ice-dispensing UTENSILS are used.

b. Utensil storage WILL be as specified in ¶ 3-25. Glassware is prohibited for scooping ice.

c. Ice may not be used as FOOD after use as a medium for cooling the exterior surfaces of FOOD (such as melons or FISH), PACKAGED FOODS (such as canned BEVERAGES), or cooling coils and tubes of EQUIPMENT.

d. Ice used as a cooling medium WILL be maintained in self-draining containers.

7-9. Single-service, Single-use Articles

The PERSON-IN-CHARGE WILL provide SINGLE-SERVICE, SINGLE-USE, individually wrapped TABLEWARE, drinking straws, and other UTENSILS for customer use.

Section III. WATER TANK, SEWAGE RETENTION SYSTEM

7-10. Water System

Mobile FOOD ESTABLISHMENTS WILL be provided with a safe and adequate supply of water under pressure to furnish hot (110 °F (43 °C) or greater) and cold water for handwashing, WAREWASHING, and FOOD preparation.*

a. Materials used in the construction of a mobile FOOD ESTABLISHMENT water tank WILL be—

(1) Safe, durable, CORROSION-RESISTANT, and nonabsorbent.[N]

(2) Finished to have a SMOOTH and EASILY CLEANABLE surface.[N]

(3) Sloped to an outlet that allows complete drainage of the tank.[N]

(4) Provided with a tank inlet that is 3/4 in (19.1 mm) or less in inner diameter. A hose connection of equal size or type WILL be provided to prevent its use for any other service, and a cap WILL be provided to cover the inlet at all times. Water hoses WILL be NSF International listed for DRINKING WATER.[N]

b. For gravity-flow or pump-provided systems only, provide a water tank vent which terminates in a downward direction and is covered with a 16-mesh to 1-in (16-mesh to 2.54-cm) screen or metric equivalent when the vent is in a protected area, or provide a protective filter when the vent is in an area that is not protected from windblown dirt and debris.[N]

c. For pressurized, compressed air systems only, provide with a filter that does not pass oil or oil vapors and that is installed in the air supply line between the compressor and water system.[N]

7-11. Sewage Retention Tank

A SEWAGE holding tank WILL be provided on mobile FOOD ESTABLISHMENTS and WILL be designed and constructed as follows:

a. Sized 15 percent or larger in capacity than the POTABLE WATER supply tank.

b. Sloped to a drain that is 1 in (2.54 cm) or greater in inner diameter and equipped with a shut-off valve.

c. Installed so that the drain shut-off valve is lower than the water tank inlet.

d. Provided with permanently plumbed lines from fixture to the holding tank that are installed according to chapter 5, section IV.

e. Installed so that no connection exists between the SEWAGE system and a drain originating from EQUIPMENT in which FOOD, portable EQUIPMENT, or UTENSILS are placed.*

f. Installed so that the SEWAGE cannot be discharged when the mobile FOOD unit is in motion.

7-12. Cleaning Potable Water and Sewage Retention Systems*

The water tank, pump, SEWAGE retention system, and hoses WILL be flushed and sanitized before or during daily servicing operations; before being placed in service after construction, repair, or modification; and after periods of nonuse (greater than 72 hours). Water and SEWAGE retention systems WILL be cleaned and sanitized by—

a. Filling the system with a 100-ppm chlorine solution and allowing a 1-minute contact time.

b. Flushing each POTABLE WATER outlet, faucet, or hose bib for 5 minutes.

c. Monitoring the chlorine residual at each POTABLE WATER outlet to ensure a chlorine residual of 50 ppm or greater. Water systems and tanks WILL be reflushed with 100-ppm chlorine if residual is less than 50 ppm.

d. Draining remaining chlorine solution and refilling the water holding tanks with DRINKING WATER.

7-13. Solid Waste

Covered waste receptacles WILL be made available for mobile FOOD ESTABLISHMENTS and WILL be durable, cleanable, insect and rodent resistant, leakproof, and nonabsorbent. *Mobile FOOD ESTABLISHMENTS operating at fixed locations (for example, malls or play areas) may use covered waste receptacles located near the area of operation.*

Section IV. SERVICING FOOD ESTABLISHMENT

7-14. Fixed Servicing Food Establishment

Mobile FOOD ESTABLISHMENTS WILL operate from a fixed servicing FOOD ESTABLISHMENT and WILL return daily to the fixed servicing FOOD ESTABLISHMENT for normal servicing operations. Fixed servicing FOOD ESTABLISHMENTS WILL be constructed and operated in compliance with all applicable requirements of this bulletin and the local civilian authorities and WILL include—

a. Overhead protection for any supplying, cleaning, or servicing operations.

b. A SERVICING AREA floor surface constructed of SMOOTH, nonabsorbent material, such as concrete or machine-laid asphalt, that is sloped to drain and is maintained in clean and good repair.

c. A SERVICING AREA for flushing and draining liquid wastes that is totally separate from other operations. *Fixed servicing FOOD ESTABLISHMENTS supporting mobile FOOD ESTABLISHMENTS that do not contain built-in liquid waste retention tanks are exempt from this requirement.*

d. Cleaning and SANITIZING EQUIPMENT for FOOD-CONTACT SURFACES as specified in chapter 4.

e. DRINKING WATER system servicing EQUIPMENT and liquid waste disposal installed in accordance with applicable plumbing codes. Appropriate backflow prevention WILL be provided.

7-15. Servicing Operations

The normal servicing operations of mobile FOOD ESTABLISHMENTS at fixed servicing FOOD ESTABLISHMENTS include—

a. Cleaning and SANITIZING all FOOD-CONTACT SURFACES and nonFOOD-CONTACT SURFACES, EQUIPMENT, UTENSILS, and multiuse articles as specified in chapter 4, section VII.

b. Flushing and SANITIZING the water tanks as specified in section III of this chapter.

c. Disposing of SEWAGE and flushing the SEWAGE holding tank and any liquid catch basins (for example, coffee urns.)

d. Repairing or replacing EQUIPMENT and UTENSILS.

e. Replenishing supplies, including FOOD items, SINGLE-SERVICE ARTICLES, paper goods, soaps, and chemicals.

CHAPTER 8
TEMPORARY FOOD SERVICE ESTABLISHMENT

Section I. GENERAL PROVISIONS

8-1. Training

a. The PERSON-IN-CHARGE of TEMPORARY FOOD ESTABLISHMENTS and the fixed servicing FOOD ESTABLISHMENT, and all FOOD EMPLOYEES, WILL comply with training requirements as specified in chapter 2, section V.

b. The supervisor for one or more limited-menu FOOD ESTABLISHMENTS WILL be designated as the PERSON-IN-CHARGE of the limited-menu units and WILL comply with training requirements as specified in ¶ 2-18. Individual FOOD EMPLOYEES operating the temporary units WILL receive training appropriate to the menu served and facilities and EQUIPMENT used.

8-2. Requirements

a. TEMPORARY FOOD ESTABLISHMENTS are temporary FOOD stands or operations set up in a fixed location in conjunction with a single event or celebration that does not exceed 14 consecutive days. Examples of events include festivals, fairs, and establishment of temporary FOOD services due to closure of permanent FOOD ESTABLISHMENTS because of a natural or man-made disaster.

b. Requirements set forth in this chapter apply to all TEMPORARY FOOD ESTABLISHMENTS. *Exempted from these requirements are FIELD FOOD SERVICE operations and mobile FOOD ESTABLISHMENTS. The MEDICAL COMMANDER or designated representative may impose additional requirements to protect against health HAZARDS related to the conduct of the FOOD ESTABLISHMENT as a temporary FOOD operation and may prohibit the sale of some or all PHF. When no HAZARD WILL result, the MEDICAL COMMANDER or designated representative may waive or modify requirements of this chapter relating to PHYSICAL FACILITIES.*

8-3. Pre-approval Inspections

a. The MEDICAL COMMANDER or designated representative WILL review and approve TEMPORARY FOOD ESTABLISHMENTS prior to operation on military installations. The review process WILL include a menu review/risk analysis for each TEMPORARY FOOD ESTABLISHMENT and a plan review of facilities and EQUIPMENT provided for each location. Following approval, the TEMPORARY FOOD ESTABLISHMENT WILL be inspected weekly or more often if deemed necessary by the MEDICAL COMMANDER or designated representative.

b. The PERSON-IN-CHARGE of the TEMPORARY FOOD ESTABLISHMENT WILL provide the following information to the MEDICAL COMMANDER or designated representative for review:

(1) Intended menu and anticipated volume of FOOD to be stored, prepared, sold, or served.

(2) Proposed layout of TEMPORARY FOOD ESTABLISHMENT and construction materials.

(3) EQUIPMENT listing (for example, WAREWASHING EQUIPMENT, refrigerated and dry storage units, SINGLE-SERVICE and SINGLE-USE ARTICLES, wood burning pit, FOOD grade ice chest, tables, etc.).

(4) Number of FOOD handling EMPLOYEES, PERSONS-IN-CHARGE, and supervisors.

(5) Copy of written agreement with fixed servicing FOOD ESTABLISHMENT for off-site preparation and packaging of APPROVED FOODS.

(6) All FOOD service EQUIPMENT WILL meet NSF International standards (see chap 4) and FOOD carts WILL meet NSF International Standard 59.

8-4. General Structural Requirements

a. The walls and ceilings of all FOOD preparation, storage, and handling areas of TEMPORARY FOOD ESTABLISHMENTS WILL be constructed of wood, canvas, or other material and fine mesh fly screening (16 mesh per inch or greater) to effectively protect the FOOD service area from the weather and other elements, such as dust, debris, and insect entry. Facilities wherein all FOOD and BEVERAGE is prepackaged at a fixed APPROVED FOOD ESTABLISHMENT may be exempt from complete enclosure.

b. All openings into the TEMPORARY FOOD ESTABLISHMENTS WILL be equipped with tight-fitting closures, air curtains, or other APPROVED methods to restrict entry of flying insects.

c. Floors WILL consist of concrete, machine-laid asphalt, wood, or other similar cleanable material that covers the entire FOOD service area. The MEDICAL COMMANDER or designated representative may approve use of dirt or gravel as subflooring provided floors are—

(1) Graded to drain, and

(2) Covered with clean, removable platforms, duckboards, or other suitable nonabsorbent materials effectively treated to control dust.

d. Outdoor walking and driving surfaces WILL con-

sist of concrete, asphalt, gravel or other material authorized by the MEDICAL COMMANDER or designated representative to effectively minimize dust, facilitate maintenance, and prevent muddy conditions and pooling of water.

e. All FOOD-CONTACT SURFACES, EQUIPMENT, and UTENSILS WILL be constructed from materials that are safe, durable, CORROSION-RESISTANT, nonabsorbent and EASILY CLEANABLE as specified in chapter 4.*

f. EQUIPMENT WILL be located and installed in a manner that prevents FOOD contamination and facilitates cleaning and SANITIZATION.

g. Clean and SANITIZED UTENSILS and TABLEWARE WILL be protected from contamination, to include during transport from the fixed FOOD ESTABLISHMENT to the TEMPORARY FOOD ESTABLISHMENT, through use of enclosed containers.

h. Grills and barbecues WILL be protected from public access by use of ropes or other APPROVED methods.

i. A safe and adequate supply of hot and cold water WILL be provided through APPROVED systems.

j. A handwashing sink with hot and cold running water, hand soap, and paper towels WILL be provided in each TEMPORARY FOOD ESTABLISHMENT. *The handwashing sink may be—*

(1) *A temporary handwashing setup comprised of a minimum of two 2-gallon insulated containers (each with a spigot) and a catch basin. One container WILL be filled with hot water at 110 °F (43 °C) or higher; or*

(2) *A single 5-gallon insulated container APPROVED by the MEDICAL COMMANDER or designated representative for limited use, provided the washwater temperature can be maintained at 110 °F (43 °C) or higher during FOOD preparation, servicing, and cleaning.*

k. A three-compartment WAREWASHING sink with a drain board WILL be provided in TEMPORARY FOOD ESTABLISHMENTS for cleaning and SANITIZING EQUIPMENT and UTENSILS. *A WAREWASHING sink is not required if the TEMPORARY FOOD ESTABLISHMENT operates out of a fixed servicing FOOD ESTABLISHMENT that has WAREWASHING facilities provided the TEMPORARY FOOD ESTABLISHMENT has adequate areas to store soiled EQUIPMENT and UTENSILS in vermin-proof containers and the EQUIPMENT and UTENSILS are returned to the fixed servicing FOOD ESTABLISHMENT for cleaning and SANITIZING. The MEDICAL COMMANDER or designated representative may waive or modify three-compartment requirements when effective alternative methods are available.*

l. At least one toilet facility for each 15 EMPLOYEES WILL be provided within 200 feet (60 m) of each TEMPORARY FOOD ESTABLISHMENT.

m. Wastewater generated in the TEMPORARY FOOD ESTABLISHMENT WILL be disposed of in an APPROVED SEWAGE system or suitable storage device.

n. Effective shields and sneeze guards for EQUIPMENT WILL be provided.

o. A mechanical ventilation system, as specified in chapter 6, section VII, consisting of a metal hood with removable, metal, grease-collecting filters may be provided over all cooking EQUIPMENT, located within enclosed areas, that produce smoke, steam, or grease vapors.

Section II. FOOD

8-5. General Food Requirements

a. FOOD prepared in the TEMPORARY FOOD ESTABLISHMENT or from an APPROVED, fixed FOOD ESTABLISHMENT supporting a TEMPORARY FOOD ESTABLISHMENT WILL be obtained from APPROVED sources as specified in ¶¶ 3-3 and 3-4.*

b. FOOD preparation, storage, and service on TEMPORARY FOOD ESTABLISHMENTS WILL be in accordance with all requirements set forth in chapter 3.

c. Dry storage (semi-perishable) FOOD WILL be stored 6 in (15 cm) above the floor on NSF International listed pallets or shelving and WILL be protected from contamination. Wood pallets are prohibited.

d. PHF WILL be stored, cooked, held, and reheated to the proper temperatures as specified in chapter 3. Adequate cold- or hot-holding storage units WILL be provided to maintain PHF at the required temperature of 40 °F (4.4 °C) or below for chilled items, 0 °F or less for FROZEN items, and 140 °F (60 °C) for hot items. *The MEDICAL COMMANDER or designated representative may approve the substitution of ice chest cold storage units for refrigerated storage.*

e. The PERSON-IN-CHARGE WILL monitor and verify proper FOOD cooking, cooling, cold- or hot-holding temperatures of PHFs at a minimum of every 2 hours. In addition, FOOD temperatures at the time of receipt WILL be monitored and verified. *Temperature monitoring may be accomplished with calibrated bimetallic thermometers, thermocouples, or dataloggers.*

8-6. Limited-Menu Temporary Food Establishments

Limited-menu TEMPORARY FOOD ESTABLISHMENTS—

a. WILL comply with all requirements of this chapter. Items normally served from a limited menu include PACKAGED popcorn and candies, soft drinks, and limited PACKAGED baked goods (for example, donuts and rolls). Hot dogs, frankfurters, and precooked sausages that are prepared on-site and are held and dispensed at the required temperatures using only SINGLE SERVICE, SINGLE-USE ARTICLES may be served. *Items not included on a limited menu are products that require extensive handling or preparation, have added toppings (for example, chili or cheese), corndogs, or other specialty items.*

b. May serve PHFs from APPROVED sources and BEVERAGES that are—

(1) Held at 40 °F (4.4 °C) or less or 140 °F (60 °C) or above at all times as specified in ¶ 3-54 *

(2) Individually wrapped or protected from contamination as specified in chapter 3, section III *

(3) Individual packages are date marked as specified in ¶¶ 3-55 and 3-56.*

c. Are exempt from having—

(1) *Water and wastewater systems.*

(2) *Fixed cleaning and SANITIZING WAREWASHING EQUIPMENT, if this is made available at the fixed servicing FOOD ESTABLISHMENT for off-site preparation and packaging of APPROVED FOODS.*

8-7. Beverages

TEMPORARY FOOD ESTABLISHMENTS—

a. WILL dispense or serve only nonPOTENTIALLY HAZARDOUS BEVERAGES (such as water, coffee, tea, or sodas) from individual containers, covered urns, or other similarly protected systems. Use of dippers is prohibited.

b. May dispense POTENTIALLY HAZARDOUS BEVERAGES, including milk, in individual single-serving containers provided the TEMPORARY FOOD ESTABLISHMENT is equipped to prepare and maintain POTENTIALLY HAZARDOUS BEVERAGES at SAFE TEMPERATURES and to protect them from contamination.

8-8. Ice

a. Ice intended for consumption WILL originate from an APPROVED source as specified in ¶ 3-4 and WILL be dispensed from self-service, automatic ice dispensing machines or per ¶ *e* below.*

b. Ice used as a medium for cooling exterior surfaces of FOODS (such as fresh vegetables, canned BEVERAGES, PACKAGED FOODS) or ice that contacts cooling coils and tubes of dispensing EQUIPMENT WILL not be offered for human consumption.

c. Due to the nature of packaging material and product temperature variance of wrapped items in ice, PACKAGED FOOD may not be stored in direct contact with ice or water as specified in ¶ 3-22.

d. Ice used as a cooling medium WILL be maintained in self-draining containers.

e. TEMPORARY FOOD ESTABLISHMENTS that provide ice for consumption and self-service by the customer WILL—

(1) Protect the ice from contamination by covering or storing it in self-draining ice bins; or

(2) Provide ice scoops for self-service. Scoops WILL be stored—

(a) In the product with the handle above the top of the ice and bin; or

(b) Outside the bin in a clean, protected location.

8-9. Single-Service, Single-Use Articles

TEMPORARY FOOD ESTABLISHMENTS without adequate facilities for cleaning and SANITIZING TABLEWARE WILL only use individually wrapped TABLEWARE, SINGLE-SERVICE and SINGLE-USE ARTICLES, drinking straws, and other UTENSILS for customer use.

Section III. WATER TANK, SEWAGE RETENTION SYSTEM

8-10. Water System*

a. TEMPORARY FOOD ESTABLISHMENTS WILL be provided with a safe and adequate supply of water under pressure to furnish hot water (110 °F (43 °C) or greater) and cold water for handwashing, WAREWASHING, and FOOD preparation.

b. POTABLE WATER may originate from APPROVED and monitored POTABLE WATER trailers or through temporary connection to a fixed DRINKING WATER supply. If hoses are used to carry water, they WILL be made of FOOD-grade material and be NSF International APPROVED for DRINKING WATER. Use of garden hoses is prohibited, except for general area cleanup (washing floors and picnic tables). Connections WILL—

(1) Not violate local plumbing codes.[N]

(2) Be protected from cross-connection and backflow through use of a hose bib connected with a vacuum breaker or other backflow prevention device.

c. Water storage tanks may be used in the TEMPO-

RARY FOOD ESTABLISHMENT if the material used in the construction of a water tank is—

(1) Safe, durable, CORROSION-RESISTANT, and nonabsorbent.[N]

(2) Finished to have a SMOOTH and EASILY CLEANABLE surface.[N]

(3) Sloped to an outlet that allows complete drainage of the tank.[N]

(4) Provided with a tank inlet that is 3/4 in (19.1 mm) or less in inner diameter. A hose connection of equal size or type WILL be provided to prevent its use for any other service, and a cap WILL be provided to cover the inlet at all times. Water hoses WILL be NSF International listed for DRINKING WATER.[N]

d. For gravity-flow or pump-provided systems only, provide a water tank vent that terminates in a downward direction and is covered with a 16-mesh to 1-in (16-mesh to 25.4-mm) screen or metric equivalent when the vent is in a protected area, or provide a protective filter when the vent is in an area that is not protected from windblown dirt and debris.[N]

e. For pressurized, compressed air systems only, provide a filter that does not pass oil or oil vapors and that is installed in the air supply line between the compressor and water system.[N]

8-11. Sewage Disposal

a. Wastewater generated in the TEMPORARY FOOD ESTABLISHMENT WILL be disposed of in a sanitary sewer system; or

b. Wastewater may be disposed of through use of a SEWAGE holding tank, provided that the design and construction are as follows:

(1) Sized 15 percent or larger in capacity than the POTABLE WATER supply tank.

(2) Sloped to a drain that is 1 in (2.54 cm) or greater in inner diameter and equipped with a shut-off valve.

(3) Installed so that the drain shut-off valve is lower than the water tank inlet.

(4) Provided with permanently plumbed lines from fixture to the holding tank that are installed according to chapter 5, section IV.

(5) Prohibits direct connection between the SEWAGE system and a drain originating from EQUIPMENT in which FOOD, portable EQUIPMENT, or UTENSILS are placed.*

c. To avoid potential misuse of FOOD-grade hoses and cross-connections of DRINKING WATER sources, non-FOOD-grade hoses WILL be used for disposal of wastewater.

8-12. Cleaning Potable Water and Sewage Retention Systems*

A water tank, pump, SEWAGE retention system, and hoses WILL be flushed and SANITIZED before or during daily servicing operations; before being placed in service after construction, repair, or modification; and after periods of nonuse (greater than 72 hours). Water and SEWAGE retention systems WILL be cleaned and SANITIZED by—

a. Filling the system with a 100-ppm chlorine solution and allowing a 1-minute contact time.

b. Flushing each POTABLE WATER outlet, faucet, or hose bib for 5 minutes.

c. Monitoring the chlorine residual at each POTABLE WATER outlet to ensure a chlorine residual of 50 ppm or greater. Water systems and tanks WILL be reflushed with 100-ppm chlorine if residual is less than 50 ppm.

d. Draining remaining chlorine solution and refilling the water holding tanks with DRINKING WATER.

8-13. Solid Waste

An adequate number of covered waste receptacles lined with plastic bag(s) WILL be provided and removed frequently to minimize development of objectionable odors and attractant or harborage conditions for insects and rodents.

Section IV. SERVICING FOOD ESTABLISHMENT

8-14. Fixed Servicing Food Establishment

TEMPORARY FOOD ESTABLISHMENTS may operate from a fixed servicing FOOD ESTABLISHMENT. Fixed servicing FOOD ESTABLISHMENTS WILL be constructed and operated in compliance with all applicable requirements of this bulletin and local civilian authorities and WILL include—

a. Overhead protection for any supplying, cleaning, or servicing operations.

b. SERVICING AREA floor surfaces constructed of SMOOTH, nonabsorbent material (such as concrete or machine-laid asphalt) that is sloped to drain and is maintained in clean and good repair.

c. A SERVICING AREA for flushing and draining liquid wastes that is totally separate from other operations. *Fixed servicing FOOD ESTABLISHMENTS only supporting TEMPORARY FOOD ESTABLISHMENTS that do not contain built-in liquid waste retention tanks are exempt from this requirement.*

d. Cleaning and SANITIZING EQUIPMENT for FOOD-CONTACT SURFACES as specified in chapter 4.

e. DRINKING WATER system servicing EQUIPMENT and liquid waste disposals installed in accordance with applicable plumbing codes. Appropriate backflow prevention WILL be provided.

8-15. Servicing Operations

The normal servicing operations of TEMPORARY FOOD ESTABLISHMENTS at fixed servicing FOOD ESTABLISHMENTS include—

a. Cleaning and SANITIZING all FOOD-CONTACT SURFACES and nonFOOD-CONTACT SURFACES, EQUIPMENT, UTENSILS, and multiuse articles as specified in chapter 4, section VII.

b. Flushing and SANITIZING the water tank as specified in section III above.

c. Disposing SEWAGE and flushing the SEWAGE holding tanks and any liquid catch basins (for example, coffee urns).

d. Repairing or replacing EQUIPMENT and UTENSILS.

e. Replenishing supplies, including FOOD items, SINGLE-SERVICE ARTICLES, paper goods, soaps, and chemicals.

CHAPTER 9
FIELD FOOD SERVICE

Section I. GENERAL PROVISIONS

9-1. Introduction

a. Field feeding operations, especially in high-risk environments, can allow FOOD *to become vehicles in the transmission of communicable diseases, thus compromising the health and effectiveness of service members and unit readiness. Good* FOOD *sanitation practices and requirements are considered a must in any type of* FOOD *service environment, but alternative practices may be necessary in field feeding operations. This chapter is designed to provide guidance and basic requirements for* FIELD FOOD SERVICE *operations and allow flexibility without compromising the integrity of the* FOOD *and the soldiers' health.*

b. In modifying the guidance provided in this bulletin to meet certain field operations, the PERSON-IN-CHARGE *and the* MEDICAL COMMANDER *or designated representative* WILL *always focus on real* HAZARDS *associated with* FOODS *and control procedures in place to minimize or eliminate the associated* HAZARD. *A risk-based or HACCP plan allows one to deviate from specific requirements if the* HAZARDS *associated with applicable* FOOD *are properly identified and control mechanisms are in place to eliminate or minimize the* HAZARDS. *Additionally, monitoring* WILL *be in place to identify when deviations are out of control and where* HAZARDS *may still exist.*

c. The MEDICAL COMMANDER or designated representative may—

(1) Impose additional requirements to protect against health HAZARDS related to the conduct of the FIELD FOOD SERVICE operation, or

(2) Waive or modify requirements when HAZARDS are minimized or non-existent.

d. The term PERSON-IN-CHARGE used in this chapter WILL apply to FOOD service officers (FSOs), managers, or sergeants.

9-2. General Structural Requirements

FIELD FOOD SERVICE is designed to provide FOOD service support in a theater of operation or deployment of forces (for example, tactical training). Site security, tactical cover, transportation access, and geographical limitations are factors which the unit commander, FSO, or field sanitation team WILL consider in selecting sites for FIELD FOOD SERVICE operations. FM 10-23 provides guidance for Army Field Feeding and Class I Operations and FM 21-10-1 provides guidance on FIELD FOOD SERVICE sanitation. At a minimum, FIELD FOOD SERVICE operations WILL—

a. Locate the FIELD FOOD SERVICE sites a minimum of 100 yards uphill from latrines and waste storage and disposal areas.

b. Ensure field-expedient handwashing facilities are provided at FOOD preparation, serving, and latrine areas.

c. Provide a sanitation center or dishwashing line that is capable of cleaning and SANITIZING field feeding components, EQUIPMENT, and UTENSILS.

d. Provide a safe and adequate supply of DRINKING WATER through an APPROVED system.

e. Collect, store, and dispose of solid waste in a manner to minimize insect and rodent attraction (for example, buried, incinerated, returned to the forward supply point, or disposed of per local requirements).

f. Collect, store, and dispose of liquid waste water (for example, soakage pit or trench).

g. Protect FOOD during storage as specified in ¶ 3-31. Wood pallets are permitted for storing FOOD, SINGLE-SERVICE ARTICLES, and other supplies during field feeding operations as specified in ¶ 4-30.

h. Provide adequate mechanical refrigeration or ice chests to maintain proper FOOD temperature of "A" rations as specified in ¶¶ 3-50 and 3-54.

i. Use designated ration breakpoint areas for TEMPERING OR THAWING FROZEN FOOD at SAFE TEMPERATURES, or provide adequate refrigeration support at the field feeding site.

j. Transport FOOD to field feeding sites in clean, covered vehicles that WILL not subject the transported FOOD to adulteration or contamination.

Section II. FOOD

9-3. General Food Requirements

a. FOOD WILL be obtained from APPROVED sources as specified in ¶ 3-3*.

b. FOOD preparation, storage, transport, and service in FIELD FOOD SERVICE operations WILL be in accordance with all requirements set forth in chapter 3.

c. FROZEN FOOD WILL not be tempered or thawed at ambient air temperatures or in standing water. Type "A" refrigerated rations SHOULD not be used when adequate refrigeration is not available to maintain product temperature at 40 °F (4.4 °C) or below. FROZEN FOODS may either be—

(1) Thawed at a ration breakpoint and maintained at 40 °F (4.4 °C) or below; or

(2) Transported FROZEN to the field feeding site and either prepared and cooked immediately from the FROZEN state or tempered in field refrigeration units.

d. PHF WILL be stored at 40 °F (4.4 °C) or below for chilled items or at 0 °F (-17.7 °C) for frozen items, cooked to 165 °F (74 °C) internal temperature, and held at 140 °F (60 °C). Adequate cold holding for Type "A" rations or hot-holding storage units WILL be provided to maintain PHF at the required temperatures of 40 °F (4.4 °C) or below for chilled items or 140 °F (60 °C) or above for hot items. The MEDICAL COMMANDER or designated representative may approve the substitution of ice chest cold storage units for refrigerated storage.*

e. Insulated FOOD containers (IFCs) used for holding or transporting PHFs WILL be—

(1) Cleaned and SANITIZED prior to use.*

(2) Prechilled or preheated as specified in FM 10-23 before filling with PHFs.

(3) Labeled with the common name of the FOOD and the time and temperature when the IFCs are filled, loaded, and transported immediately to the field-feeding site.

f. PHFs in IFCs WILL be consumed within 4 hours from the time when the IFC is filled as specified in ¶ *e*(3) above. Any PHFs not consumed within this time period WILL be discarded. *Reheating PHF exceeding the time limitations above is strongly discouraged due to the inabilities to destroy heat stable organisms and toxins.**

g. Except as specified in ¶ *h* below, any unconsumed PHF, regardless if maintained in IFCs or not, WILL not be retained as leftover and WILL be discarded.*

h. Chilled or hot sandwiches may be retained for an additional meal period provided*—

(1) They are maintained at 40 °F (4.4 °C) or below or 140 °F (60 °C) or above; and

(2) The time between the original sandwich preparation and the second meal serving does not exceed 4 hours.

i. Individual serving condiments WILL be protected from contamination. Condiments may be dispensed from sanitary dispensers as specified in ¶ 3-36.

j. Milk and milk products for drinking purposes WILL be—

(1) Provided to the CONSUMER in an unopened, commercially filled individual PACKAGE not exceeding 1 pint or 16 fluid ounces (.473 L) in capacity as specified in ¶ 3-39; or

(2) *Drawn for immediate consumption from a commercially filled container only when mechanically refrigerated bulk milk dispensers are functional and used; and*

(3) Maintained at or below 40 °F (4.4 °C) during storage, display, or service. *An exception to this temperature requirement is provided for ultra-high temperature milk that may be immediately chilled prior to offering for CONSUMER consumption.*

9-4. Raw Fruits and Vegetables

a. Before being cut, combined with other ingredients, cooked, served, or offered for human consumption in READY-TO-EAT form, raw fruits and vegetables WILL be thoroughly washed in water to remove soil and other contaminants and completely immersed in—

(1) A 5-ppm FAC or 100-ppm total chlorine solution with a 1-minute contact time, or

(2) In 140 °F (60 °C) DRINKING WATER for 1 minute.

b. Leafy items WILL have core/hearts removed prior to immersion to facilitate thorough product exposure to chlorine.

c. Whole, raw fruits and vegetables that are commercially processed and PACKAGED vegetables in a READY-TO-EAT form need not be washed before they are served.

d. In emergency feeding situations where fresh fruits and vegetables are grown in areas of "night soil" or SEWAGE used as fertilizer, raw fruits and vegetables WILL be processed as specified in ¶ 3-20*c*.

Section III. PERSONNEL HEALTH AND HYGIENE

9-5. Personal Hygiene

a. Camouflage paint or other skin coatings are--

(1) POISONOUS and TOXIC MATERIALS when consumed.

(2) NOT permissible on the hands, arms, or face of field FOOD EMPLOYEES if they are—

(a) Preparing FOOD.

(b) Washing or SANITIZING FOOD EQUIPMENT.

(c) Performing KP duties.

b. Commanders may dictate that personnel maintain combat operational readiness in extreme tactical situations, which may include the wearing of camouflage paint or other coatings. At remote feeding sites, individuals serving FOOD or performing basic site cleanup (for example, collecting trash) may wear camouflage paint or other skin coatings on the face, hands, and arms, but the hands and arms must be covered with disposable SINGLE-USE gloves.

9-6. Applicable Publications

FIELD FOOD SERVICE sanitation expedient methods are outlined in FM 8-34, FM 8-250, FM 21-10, and FM 21-10-1.

CHAPTER 10
VENDING MACHINE OPERATIONS

Section I. GENERAL STANDARDS

10-1. Introduction

All FOOD or BEVERAGE VENDING MACHINES operated on Army installations or at FOOD ESTABLISHMENTS under Army control WILL comply with the general provisions of this bulletin and the specific requirements of this chapter.

10-2. Exclusive Vending Machine Terms

The following terms are defined exclusively for VENDING MACHINE operations:

a. Bulk FOOD. Any FOOD dispensed to the CONSUMER that is not PACKAGED, wrapped or otherwise enclosed.

b. Controlled location VENDING MACHINE (limited service VENDING MACHINE): Any VENDING MACHINE operation that—

(1) Dispenses only nonPHFs.

(2) Is of such design that it can be filled and maintained in a sanitary manner by untrained personnel.

(3) Is intended for and used at locations where protection from contamination is assured.

c. Operator. The person who, by contract, agreement, or ownership, takes responsibility for furnishing, installing, servicing, operating, or maintaining one or more VENDING MACHINES. For AAFES contract VENDING MACHINES, AAFES is the operator.

10-3. Certificate of Compliance

Except for bottled or canned BEVERAGES, all FOOD or BEVERAGE VENDING MACHINES, including customer-operated water VENDING MACHINES, WILL meet the requirements of NSF International Standard 25 or NAMA standards.

10-4. Compliance Measures

a. Before VENDING MACHINES are installed, the VENDING MACHINE operator WILL—

(1) Ensure the VENDING MACHINES meet the requirements specified in ¶ 10-3.

(2) Demonstrate compliance by submitting evidence to the MEDICAL COMMANDER or designated representative that the VENDING MACHINES meet the current standards of the NSF International or the NAMA in one of the following ways:

(a) Displaying the NSF International mark on the VENDING MACHINE and listing in the current edition of *Listing of Food Equipment and Related Products, Components and Materials*; or

(b) Listing in NAMA Publication M-4. (Refer to app A for address.)

b. In OCONUS areas, the command surgeon may accept VENDING MACHINES that comply to host nation sanitation standards provided the VENDING MACHINES do not jeopardize or compromise public health.

10-5. Training

a. The PERSON-IN-CHARGE of VENDING MACHINE operations and fixed servicing FOOD ESTABLISHMENTS and all route supervisors WILL comply with training requirements as specified in ¶ 2-18.

b. FOOD SERVICE PERSONNEL preparing PHF in a VENDING MACHINE commissary or servicing FOOD ESTABLISHMENT WILL comply with training requirements as specified in ¶ 2-19.

c. VENDING MACHINE personnel, delivery route drivers, and operator(s) are classified as FOOD SERVICE PERSONNEL. They WILL be exempt from the training requirements as specified in chapter 2, section V, if the vending contractor or contractor representative can provide documentation of a training program following the training guidelines of the NAMA.

Section II. EQUIPMENT DESIGN AND FABRICATION

10-6. Interior Cabinet Openings

a. In addition to requirements in NSF International Standard 25 or the NAMA standards as specified in ¶ 10-3, the openings into all nonpressurized containers used for the storage of vendible FOOD, including water, WILL be provided with covers to prevent contamination from reaching the interior of the containers. Such covers WILL be—

(1) Designed to provide a flange that overlaps the opening, and

(2) Sloped to provide drainage from the cover wherever collection of condensation, moisture, or splash is possible.

b. Any port openings through the cover WILL be flanged upward at least 3/16 in (4.8 mm) and provided with an overlapping cover flanged downward.

c. Condensation-, drip-, or dust-deflecting aprons WILL be provided on all piping, thermometers, EQUIPMENT, rotary shafts, and other functional parts extending into the FOOD container, unless a water-tight joint is provided. Such aprons WILL be considered as satisfactory covers for those openings that are in continuous use.

d. Gaskets, if used, WILL be of SAFE MATERIALS as specified in ¶¶ 4-3, 4-10, and 4-15. All gasket-retaining grooves WILL be EASILY CLEANABLE.

10-7. Exterior Cabinet Openings

a. VENDING MACHINE cabinet doors and access covers opening into FOOD and container storage spaces WILL be tight-fitting so that the space along the entire interface between the doors or covers and the cabinet of the machine is no greater than 1/16 in (1.6 mm) or when in a closed/locked position by—

(1) Using louvers, screens, or materials that provide an equivalent opening of not greater than 1/16 in (1.6 mm). Screening of 16 mesh per inch (2.5 cm) or greater meets this requirement;

(2) Being effectively gasketed;

(3) Having interface surfaces that are at least 1/16 in (1.6 cm) wide; or

(4) Using jambs or surfaces to form an L-shaped entry path to the interface.

b. All utility and service line installations and connections through an exterior wall of the VENDING MACHINE, including water, gas, electrical, and refrigeration connections, WILL be closed or SEALED with a pliable sealing compound as specified in ¶¶ 4-16 and 4-17 so that the openings are no larger than 1/16 in (1.6 cm). *All service connections to machines vending PHF SHOULD be designed and installed to discourage their unauthorized or unintentional disconnection.*

10-8. Dispensing Nozzles, Tubes, and Chutes

a. In EQUIPMENT that dispenses or vends liquid or bulk FOOD, or ice in UNPACKAGED form—

(1) The outlet end of the delivery nozzle, tube, chute, orifice, and splash surfaces directly above the container receiving the FOOD WILL be designed in a manner (such as with barriers, baffles, or drip aprons) so that drips from condensation and splash are diverted from the opening of the container receiving the FOOD.

(2) The delivery tube, chute, and orifice WILL be protected from manual contact, such as by being recessed.

(3) The delivery tube, chute, and orifice of EQUIPMENT used to vend liquid or bulk FOOD, ice in unpackaged form to self-service CONSUMERS, or prepackaged snack FOOD that is NONPOTENTIALLY HAZARDOUS (such as chips, party mixes, and pretzels) WILL be designed so that the delivery tube, chute, and orifice are protected from dust, insects, rodents, and other contamination by a self-closing door if the EQUIPMENT is—

(a) Located in an outside area that does not otherwise afford the protection of an enclosure against rain, windblown debris, insects, rodents, and other contaminants that are present in the environment, or

(b) Available for self-service during hours when it is not under the full-time supervision of a FOOD EMPLOYEE.

(4) The dispensing EQUIPMENT actuating lever or mechanism and filling device of consumer self-service beverage dispensing EQUIPMENT SHALL be designed to prevent contact with the lip-contact surface of glasses or cups that are refilled.

b. The cup-filling area or platform of controlled location VENDING MACHINES does not require a door or cover if there is no opening into the cabinet interior from the cup-filling area or platform other than for dispensing tube(s) or trapped waste drain.

10-9. Exterior Construction and Maintenance

The VENDING MACHINE exterior WILL be—

a. Designed and fabricated for durability under conditions of normal use as specified in chapter 4, section IV.

b. Maintained in good repair and sound condition as specified in ¶ 4-38.

10-10. Condenser Unit, Separation

If the condenser unit is an integral component of EQUIPMENT, it WILL be—

a. Separated from the FOOD and FOOD storage space by a dust-proof barrier; or

b. SEALED from the FOOD storage spaces with the condenser unit located above FOOD and container storage spaces.

10-11. Temperature Measuring Devices

VENDING MACHINES dispensing refrigerated PHF WILL be provided with one or more numerically scaled TMDs capable of being calibrated to comply with all requirements as specified in ¶ 4-31.

10-12. Vending Machines, Automatic Shutoff*

a. A machine vending PHF WILL have an automatic control that prevents the machine from vending FOOD—

(1) If there is a power failure, mechanical failure, or other condition that results in an internal machine temperature exceeding FOOD temperatures as specified in ¶ 10-24 for greater than 30 minutes.

(2) If a condition specified under ¶ (1) above of this section occurs, until the machine is serviced and restocked with FOOD that has been maintained at temperatures specified in ¶ 10-24.

b. When the automatic shutoff within a machine vending PHF is activated—

(1) In a refrigerated VENDING MACHINE, the ambient temperature may not exceed 40 °F (4.4 °C) or 45 °F (7 °C) as specified in ¶ 10-24*b*, for more than 30 minutes immediately after the machine is filled, serviced, or restocked; or

(2) In a hot-holding VENDING MACHINE, the ambient temperature may not be less than 140 °F (60 °C) for more than 120 minutes immediately after the machine is filled, serviced, or restocked.

10-13. Ventilation System

a. All ventilation louvers or openings into VENDING MACHINES WILL be effectively screened.

b. Screening material for openings into FOOD and container storage spaces of the machine WILL be no less than 16 mesh per inch or metric equivalent.

c. Screening material for openings into condenser units that are physically separated from FOOD and container storage spaces WILL be no less than 8 mesh per inch or metric equivalent.

10-14. Equipment Compartments, Drainage

EQUIPMENT compartments that are subject to accumulation of moisture, due to conditions such as condensation, FOOD or BEVERAGE drip, or water from melting ice, WILL be sloped to an outlet that allows complete draining as specified in ¶ 4-29.

10-15. Can Openers on Vending Machines

Cutting or piercing parts of can openers on VENDING MACHINES WILL be—

a. Protected from manual contact, dust, insects, rodents, and other contamination.

b. Readily removable for cleaning and SANITIZING and for replacement as specified in ¶ 4-27.

10-16. Kick Plates, Removable

Kick plates WILL be designed and easily removable as specified in ¶ 4-28.

10-17. Vending Support Equipment

a. All supporting EQUIPMENT at the vending location WILL be—

(1) Designed, constructed, and installed as specified in chapter 4.

(2) Maintained in a state of good repair and sound condition.

b. All EQUIPMENT, FOOD-CONTACT SURFACES, NONFOOD-CONTACT SURFACES, and UTENSILS WILL be cleaned, rinsed, and SANITIZED as specified in section VI of this chapter.

10-18. Vending Machine Maintenance and Operation

All FOOD-CONTACT SURFACES of VENDING MACHINES to include containers, pipes, valves, and fittings WILL be constructed and repaired with SAFE MATERIALS as specified in chapter 4, sections II, III, and VI.

Section III. VENDING MACHINE INSTALLATION AND LOCATION

10-19. Location Selection

a. VENDING MACHINES, ovens, and other EQUIPMENT associated with vending WILL be located in areas that are designed, constructed, installed, and maintained in a clean condition as specified in chapter 6.

b. The immediate area in which the EQUIPMENT is located WILL be well lighted and ventilated as specified in chapter 6, sections VI and VII.

c. Location of the VENDING MACHINES WILL minimize the presence of insects and rodents as specified in ¶ 5-33.

10-20. Free-Standing Vending Machines, Installation

Free-standing VENDING MACHINES WILL be—

a. EASILY MOVEABLE to facilitate cleaning with service connections in place; or

b. Elevated on legs or extended sidewalls to afford, with or without kick plates, an unobstructed vertical space of at least 6 in (15 cm) under the machine; or

c. Mounted on rollers or casters to permit easy movement; or

d. SEALED to the floor.

10-21. Table-Mounted Vending Machines, Installation

Table-mounted VENDING MACHINES WILL be—

a. SEALED to the counter; or

b. Elevated on legs that provide at least a 4-in (10-cm) clearance between the table and the VENDING MACHINE; or

c. EASILY MOVEABLE to facilitate cleaning with service connections in place.

10-22. Openings Through Walls, Floors, and Ceilings

All utility and service line installations and connections (including water, gas, electrical, and refrigeration connections) through an exterior wall of the VENDING MACHINE WILL be closed or SEALED with a pliable sealing compound as specified in ¶¶ 4-16 and 4-17. *All service connections to machines vending PHF SHOULD be designed and installed to discourage their unauthorized or unintentional disconnection.*

10-23. Floors

a. Floors where VENDING MACHINES are located WILL be reasonably SMOOTH, of cleanable construction, and capable of withstanding repeated washing and scrubbing as specified in chapter 6, section II.

b. The MEDICAL COMMANDER or designated representative may approve the location of VENDING MACHINES that dispense FOOD or drinks in individual containers in areas that are covered with a tightly woven, EASILY CLEANABLE carpet. This space and the immediate surroundings of each VENDING MACHINE WILL be maintained in a clean sanitary condition.

Section IV. FOOD AND SINGLE-SERVICE, SINGLE-USE ARTICLES

10-24. General Food Requirements

a. FOOD prepared for and vended through VENDING MACHINES WILL be obtained from APPROVED sources as specified in ¶¶ 3-3 and 3-4.*

b. PHF WILL be stored, transported, cooked, held, and reheated to the proper temperatures as specified in chapter 3. Adequate cold or hot holding VENDING MACHINES WILL be provided to maintain PHF at the required temperatures of 40 °F (4.4 °C) or below for chilled items, 0 °F or less for FROZEN items, and 140 °F (60 °C) or above for hot items. In-place VENDING MACHINES that are designed to operate at 45 °F (7 °C) WILL be replaced or upgraded within 2 years of print of this bulletin to maintain FOOD at a temperature of 40 °F (4.4 °C) or less.*

c. PHF in hot FOOD VENDING MACHINES WILL be heated immediately after placement in the machine. Hot FOOD WILL be maintained at an internal product temperature above 140 °F (60 °C). *An exception may be made to allow for a 120-minute recovery time to heat FOOD from 40 °F (4.4 °C) to 140 °F (60 °C) after the time of loading and servicing of VENDING MACHINE as specified in ¶ b above.**

d. All FOOD WILL be protected from contamination by all agents, including dust, insects, rodents, unclean EQUIPMENT and UTENSILS, unnecessary handling, EMPLOYEES, flooding, improper drainage, and overhead leakage or condensation.

e. PRE-PREPARED or prePACKAGED PHF WILL be prepared without condiments and date marked as specified in ¶¶ 3-55 and 3-56 with the date and time of preparation. When PACKAGED condiments are included with PHF, a layer of packaging WILL be placed between the

PHF and the PACKAGED condiments to prevent accidental contamination from the condiments during storage and display.*

f. When APPROVED by the MEDICAL COMMANDER or designated representative, meat salads or other high protein salad fillings may be used. Fillings WILL be commercially acidified to a pH of 4.5 or below, and written laboratory results or certificate of conformance WILL be provided as specified in ¶ 3-56*d*.*

g. Milk, fluid milk products, and nondairy creamers WILL not be dispensed in VENDING MACHINES as a bulk FOOD item, *except that nondairy coffee whiteners may be dispensed through APPROVED coffee dispensing VENDING MACHINES.*

h. PHF offered for sale through VENDING MACHINES WILL be dispensed to the CONSUMER in the individual original container or PACKAGE that it was placed in at the servicing FOOD ESTABLISHMENT or at the manufacturing or processing plant. PHF WILL not be dispensed from bulk FOOD machines. *PHF commercially PACKAGED in HERMETICALLY SEALED containers to prevent spoilage; and dehydrated, dry, or powdered products so low in moisture content as to minimize development of microorganisms are excluded from the definition of PHF as used in this chapter.*

10-25. Frozen Food Vending

a. All commercially FROZEN, READY-TO-EAT, PHFs WILL be placed in the VENDING MACHINE provided the item is FROZEN as part of the production process. Such products may be kept in the VENDING MACHINE for the duration of the manufacturer's labeled shelf life, provided the following requirements are followed:

(1) FROZEN, READY-TO-EAT, PHFs WILL not be tempered prior to placement in the VENDING MACHINE; and

(2) FROZEN, READY-TO-EAT, PHFs WILL be kept at 0 °F (-18 °C) or below during transport, servicing, and loading of the VENDING MACHINE.

b. READY-TO-EAT, PHFs may be FROZEN at the servicing FOOD ESTABLISHMENT upon approval of the MEDICAL COMMANDER or the designated representative. Such FOOD WILL be individually labeled with the date and time of preparation.

c. FROZEN, READY-TO-EAT, PHFs intended to be vended as a chilled item at 40 °F (4.4 °C) or less WILL be placed in the VENDING MACHINE within 28 days of preparation and removed from the machine within 5 days after removal from FROZEN storage. Each item label WILL be relabeled to reflect the correct expiration date.

10-26. Condiments

Condiments provided in conjunction with FOOD dispensed by VENDING MACHINES WILL be protected from contamination and dispensed as specified in ¶ 3-36.

10-27. Fresh Fruits*

a. Before being cut, combined with other ingredients, cooked, served, or offered for human consumption in READY-TO-EAT form, raw fruits and vegetables WILL be thoroughly washed in water to remove soil and other contaminants and—

(1) Completely immersed in a 100-ppm chlorine solution with a 1-minute contact time, or

(2) Immersed in 160 °F (72 °C) DRINKING WATER for 1 minute.

b. Washing WILL be accomplished either at the—

(1) Packing plant by the processor; or

(2) Servicing FOOD ESTABLISHMENT before being placed in the VENDING MACHINES for dispensing. The washed fruit WILL be protected from contamination.

10-28. Vending Machine Food Disposition*

a. Refrigerated, READY-TO-EAT, PHF prepared in a FOOD ESTABLISHMENT and dispensed through a VENDING MACHINE with an automatic shut-off control that is activated at a temperature of—

(1) 40 °F (4.4 °C) WILL be discarded if not sold within 7 days of production; or

(2) 45 °F (7 °C) WILL be discarded if not sold within 4 days of production.

b. Individual packages of PHF WILL be removed from sale and discarded if not consumed within the "sell by" or "use by" date.[N]

10-29. Single-Service, Single-Use Articles

The operator WILL provide SINGLE-SERVICE, SINGLE-USE, individually wrapped TABLEWARE, drinking straws, and other UTENSILS for customer use that are constructed of material as specified in ¶ 4-3; stored in a clean, dry place until used; and handled in a sanitary manner and protected from contamination.

Section V. SANITARY FACILITIES AND CONTROLS

10-30. Water Supply

a. All water used in VENDING MACHINES WILL originate from an APPROVED source through an APPROVED system. All plumbing connections to the VENDING MACHINE WILL comply with applicable plumbing regulations.*

b. Water used as a FOOD ingredient WILL be provided to the VENDING MACHINE under pressure; *except that, when APPROVED by the MEDICAL COMMANDER or designated representative, controlled location VENDING MACHINE water may be obtained from a safe source and carried to the machines in cleaned and SANITIZED containers of APPROVED construction.**

c. Water filters or other water conditioning devices, when used, WILL be easily disassembled to facilitate periodic cleaning or replacement of the active element. A replacement element WILL be handled in a sanitary manner.

10-31. Carbonator Backflow Prevention*

VENDING MACHINES connected to a water supply system that dispenses carbonated BEVERAGES WILL be equipped with a double check valve, an air gap, or other device APPROVED by the local plumbing authority to prevent flow of carbon dioxide and carbonated water back into the supply system. The ingredient or carbonated water-contact surfaces of these valves or protective devices, including the device itself, WILL be a material that does not create a toxic substance on contact with carbon dioxide or carbonated water.

10-32. Handwashing Facilities*

a. Adequate handwashing facilities as specified in ¶¶ 5-25 and 5-26—

(1) WILL be convenient to the location of a machine vending PHF.

(2) WILL be available for use by EMPLOYEES servicing or loading bulk FOOD machines.[P]

b. When handwashing facilities are not available, the MEDICAL COMMANDER or designated representative WILL—

(1) *APPROVE an effective alternative handwashing method; or*

(2) *Restrict the types of FOOD vended to only PREPACKAGED.*

10-33. Liquid Waste Disposal

a. VENDING MACHINES designed to store BEVERAGES that are PACKAGED in containers made from paper products WILL be equipped with diversion devices and retention pans or drains for container leakage.

b. VENDING MACHINES that dispense liquid FOOD in bulk WILL be—

(1) Provided with an internally mounted waste receptacle for the collection of drip, spillage, overflow, or other internal wastes.

(2) Equipped with an automatic shutoff device that WILL place the machine out of operation before the waste receptacle overflows. Shutoff devices WILL prevent water or liquid FOOD from continuously running if there is a failure of a flow control device in the water or liquid FOOD system or waste accumulation that could lead to overflow of the waste receptacle.

c. Controlled location VENDING MACHINES that are not connected to a water supply system and that do not generate internal liquid wastes may be equipped with easily removable drip pans at the dispensing platform in lieu of internal waste containers and automatic shutoff devices.

d. Controlled location VENDING MACHINES connected to a liquid waste disposal system that has no internal waste containers WILL be equipped with at least two independently operated controls to prevent the continued flow of water in the event of failure of any single-flow control device. Containers or surfaces on which such waste may accumulate WILL be easily removable for cleaning, EASILY CLEANABLE, and CORROSION-RESISTANT. If liquid waste from drips, spillage, or overflow that originates within the machine is discharged into an APPROVED sanitary SEWAGE system as specified in ¶ 5-12, it WILL be protected through use of an air gap as specified in ¶ 5-16b.*

10-34. Refuse Disposal

a. REFUSE receptacles WILL be—

(1) Self-closing, leakproof, and EASILY CLEANABLE.

(2) Durable, cleanable, insect- and rodent-resistant, leakproof, nonabsorbent, and provided in the immediate vicinity of VENDING MACHINE(S).

(3) Removed from the VENDING MACHINE location, as necessary, to prevent nuisance, unsightliness, and insect and rodent attraction.

(4) Cleaned after emptying, as required, to minimize development of objectionable odors and attractant or harborage conditions for insects and rodents.

b. REFUSE receptacles WILL not be—

(1) Located within the VENDING MACHINES; *except that, VENDING MACHINES dispensing only PACKAGED FOOD with crown closure may be designed with REFUSE receptacles located within the machine.*

(2) Located under counters or otherwise enclosed in a manner that creates a nuisance or prevents space around and under the counter or enclosure from being EASILY CLEANED and maintained. Suitable racks or cases WILL be provided for multiuse containers or returnable bottles.

Section VI. VENDING MACHINE CLEANING AND SANITIZING

10-35. Cleaning Frequency of Vending Machines*

All VENDING MACHINES supporting EQUIPMENT and UTENSILS WILL be cleaned, rinsed, and SANITIZED at a frequency established by the MEDICAL COMMANDER or designated representative based upon evaluation of the FOOD involved, characteristics of the EQUIPMENT and its use, the types of conditions where VENDING MACHINES are located, and the external environmental conditions where VENDING MACHINES are located.[P]

10-36. Manual Cleaning*

a. All FOOD-CONTACT SURFACES, unless designed for CIP operation, WILL be accessible for manual cleaning, rinsing, SANITIZING, and inspection—

(1) Without being disassembled; or[N]

(2) By disassembly without the use of tools; or[N]

(3) By easy disassembling with the use of only simple tools, such as a screwdriver, pliers, or an open-end wrench.[N]

b. All FOOD-CONTACT SURFACES not designed for CIP WILL be cleaned, rinsed, and SANITIZED in clean, portable containers or in WAREWASHING sinks at the location or the servicing FOOD ESTABLISHMENT following the procedures specified in ¶ 4-42 and 4-43.[P]

10-37. CIP Systems

a. VENDING MACHINES' CIP EQUIPMENT WILL be designed and constructed as specified in ¶ 4-20. The CIP system WILL allow—

(1) Circulation of cleaning and SANITIZING solutions throughout the VENDING MACHINE and contact with all interior FOOD-CONTACT SURFACES.

(2) Self-draining or be capable of being completely evacuated of cleaning, rinsing, or SANITIZING solution.

b. The operator WILL have and use a—

(1) Test kit to measure chemical sanitizer concentration as specified in ¶ 4-45.

(2) Thermometer to measure water temperature when hot water SANITIZATION is used.

CHAPTER 11
POISONOUS OR TOXIC MATERIALS

Section I. HAZARDOUS COMMUNICATION, LABELING AND IDENTIFICATION

11-1. Hazardous Communication*

a. Each FOOD ESTABLISHMENT WILL have an effective hazard communication (HAZCOM) program that WILL include as a minimum—

(1) An inventory listing of POISONOUS or TOXIC MATERIALS used in the FOOD ESTABLISHMENT.

(2) Material Safety Data Sheet (MSDS) or Hazardous Materials Information Sheet (HMIS) for each POISONOUS or TOXIC MATERIAL. *All MSDSs or HMISs WILL be made available to each EMPLOYEE on all operating shifts.*

(3) Proper labels as specified in ¶ 11-2.

(4) EMPLOYEE training program.

b. AAFES FOOD ESTABLISHMENTS WILL post the AAFES's MSDS "Hotline" telephone number in an EMPLOYEE accessible area.

11-2. Original and Working Containers, Identifying Information*

a. Containers of POISONOUS or TOXIC MATERIALS and PERSONAL CARE ITEMS WILL bear a legible manufacturer's label.

b. Working containers used for storing POISONOUS or TOXIC MATERIALS, such as cleaners and SANITIZERS taken from bulk supplies, WILL be clearly and individually identified with the common name of the material.

Section II. OPERATIONAL SUPPLIES AND APPLICATION

11-3. Poisonous or Toxic Materials Presence*

Only those POISONOUS or TOXIC MATERIALS that are required for the operation and maintenance of a FOOD ESTABLISHMENT, such as for the cleaning and SANITIZING of EQUIPMENT and UTENSILS and the control of insects and rodents, WILL be allowed in a FOOD ESTABLISHMENT.[P] *This requirement does not apply to PACKAGED POISONOUS or TOXIC MATERIALS that are for retail sale.*

11-4. Separation*

a. POISONOUS or TOXIC MATERIALS WILL be stored so that they cannot contaminate FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES by—

(1) Separating the POISONOUS or TOXIC MATERIALS by spacing or partitioning.[P]

(2) Locating the POISONOUS or TOXIC MATERIALS in an area that is not above FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE or SINGLE-USE ARTICLES. When not in use, POISONOUS or TOXIC MATERIALS WILL be stored in a locked and labeled cabinet(s) or storage room. *This paragraph does not apply to EQUIPMENT and UTENSIL cleaners and SANITIZERS that are stored in WAREWASHING areas for availability and convenience if the materials are stored to prevent contamination of FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES.*

b. Chemicals that bear EPA's registration or HAZCOM label WILL be kept in their original containers when required by law.

11-5. Conditions of Use*

a. POISONOUS or TOXIC MATERIALS WILL be—

(1) Used according to—

(a) LAW and this bulletin.

(b) Manufacturer's use directions included in labeling and, for a pesticide, manufacturer's label instructions that state that use is allowed in a FOOD ESTABLISHMENT.

(c) The conditions of certification, if certification is required, for use of the pest control materials.

(d) Additional conditions that may be established by the REGULATORY AUTHORITY.

(2) Applied so that—

(a) A HAZARD to EMPLOYEES or other PERSONS is not constituted.

(b) Contamination (including toxic residues due to drip, drain, fog, splash, or spray) of FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES is prevented. For a RESTRICTED-USE PESTICIDE, this is achieved by—

1. Removing the items,

2. Covering the items with impermeable covers, or

3. Taking other appropriate preventive actions; and

4. Cleaning and SANITIZING EQUIPMENT and UTENSILS after the application.

b. A RESTRICTED-USE PESTICIDE WILL be applied only by an applicator certified as defined in section 136(e), title 7, United States Code (7 USC 136 (e)) or by a PERSON under the direct supervision of a certified applicator.

11-6. Poisonous or Toxic Material Containers Prohibitions*

A container previously used to store POISONOUS or TOXIC MATERIALS may not be used to store, transport, or dispense food.

11-7. Chemical Sanitizers, Criteria*

a. Chemical SANITIZERS and other chemical antimicrobials applied to FOOD-CONTACT SURFACES WILL meet the requirements for sanitizing solutions specified in 21 CFR 178.1010.

b. Phenolic compounds are prohibited for use as a chemical SANITIZER on FOOD-CONTACT SURFACES.

c. The USDA'S List of Proprietary Substances and Nonfood Compounds authorized for use under USDA inspection and grading programs may serve as a quick reference and source for APPROVED chemical SANITIZERS and detergents.

11-8. Chemicals for Washing Fruits and Vegetables, Criteria*

Chemicals used to wash or peel raw, whole fruits and vegetables WILL meet the requirements specified in 21 CFR 173.315.

11-9. Boiler Water Additives, Criteria*

Chemicals used as BOILER WATER ADDITIVES WILL meet the requirements specified in 21 CFR 173.310.

11-10. Drying Agents, Criteria*

a. Drying agents used in conjunction with SANITIZATION WILL contain only components that are listed as one of the following:

(1) GRAS for use in food as specified in 21 CFR 182 or 21 CFR 184.

(2) GRAS for the intended use as specified in 21 CFR 186.

(3) APPROVED for use as a drying agent under a prior sanction specified in 21 CFR 181.

(4) Specifically regulated as an indirect FOOD ADDITIVE for use as a drying agent as specified in 21 CFR 175 through 21 CFR 178.

(5) APPROVED for use as a drying agent under the threshold of regulation process established by 21 CFR 170.39.

b. When SANITIZATION is with chemicals, the approval required under ¶¶ *a*(3) or *a*(5) above or the regulation as an indirect FOOD ADDITIVE required under ¶ *a*(4) above WILL be specifically for use with chemical SANITIZING solutions.

11-11. Lubricants, Incidental Food Contact, Criteria*

Lubricants WILL meet the requirements specified in 21 CFR 178.3570 if they are used on FOOD-CONTACT SURFACES; on bearings and gears located on or within FOOD-CONTACT SURFACES; or on bearings and gears that are located so that lubricants may leak, drip, or be forced into food or onto FOOD-CONTACT SURFACES.

11-12. Restricted Use Pesticides, Criteria*

RESTRICTED USE PESTICIDES specified under ¶ 11-5*b* WILL meet the requirements specified in 40 CFR 152, Subpart I.

11-13. Rodent Bait Stations*

Rodent bait WILL be contained in a covered, tamper-resistant bait station.

11-14. Tracking Powders, Pest Control and Monitoring*

a. A tracking powder pesticide may not be used in a FOOD ESTABLISHMENT.

b. If used, a nontoxic tracking powder, such as talcum or flour, may not contaminate FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES.[N]

11-15. Personal Care Items, Medicines, and First-aid Supplies, Restriction and Storage*

a. PERSONAL CARE ITEMS, medicines, and first-aid supplies WILL be stored to prevent—

(1) Contamination of FOOD, EQUIPMENT, UTENSILS, LINENS, SINGLE-SERVICE and SINGLE-USE ARTICLES; or

(2) Unjustified risk to the EMPLOYEE'S or CONSUMER'S health due to accidental consumption.

b. Only those medicines that are necessary for the health of EMPLOYEES WILL be allowed in a FOOD ESTAB-

LISHMENT. Medicines belonging to EMPLOYEES WILL be labeled as specified under ¶ 11-2. *This requirement does not apply to medicines that are stored or displayed for retail sale.*

c. Medicines belonging to EMPLOYEES or children in a day care center that require refrigeration and are stored in a FOOD refrigerator WILL be—

(1) Stored in a package or container and kept inside a covered, leakproof container that is identified as a container for the storage of medicines.

(2) Located so that they are inaccessible to children.

d. First-aid supplies that are in a FOOD ESTABLISHMENT for the EMPLOYEES' use WILL be labeled as specified under ¶ 11-2 and be stored in a kit or a container that is stored separately.[P]

e. The PERSON-IN-CHARGE WILL conspicuously post signs with emergency telephone numbers and first-aid procedures for choking. Posters demonstrating first aid for choking (Heimlich Maneuver) may be obtained from the local American Red Cross Chapter or the National Restaurant Association.

11-16. Storage and Display Separation*

POISONOUS or TOXIC MATERIALS WILL be stored and displayed for retail sale so that they cannot contaminate FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE and SINGLE-USE ARTICLES by—

a. Separating the POISONOUS or TOXIC MATERIALS by spacing or partitioning; or

b. Locating the POISONOUS or TOXIC MATERIALS in an area that is not above FOOD, EQUIPMENT, UTENSILS, LINENS, and SINGLE-SERVICE or SINGLE-USE ARTICLES.

CHAPTER 12

ADMINISTRATIVE PROCEDURES, COMPLIANCE AND ENFORCEMENT

Section I. APPLICABILITY

12-1. Public Health Protection

a. The MEDICAL COMMANDER or designated representative and the PERSON-IN-CHARGE of applicable FOOD ESTABLISHMENTS WILL apply the provisions of this bulletin to promote its underlying purpose, as specified in ¶ 1-1, of safeguarding public health and ensuring that food is safe, UNADULTERATED, and honestly presented when offered to the CONSUMER.

b. In enforcing the provisions of this bulletin, the MEDICAL COMMANDER or designated representative will assess existing facilities or EQUIPMENT that were in use before the effective date of this bulletin based on the following considerations:

(1) Whether the facilities or EQUIPMENT are in good repair and capable of being maintained in a sanitary condition.

(2) Whether FOOD-CONTACT SURFACES comply with chapter 4, section II, for materials for construction and repair.

(3) The existence of a documented agreement with the FOOD ESTABLISHMENT that the facilities or EQUIPMENT WILL be replaced if—

(a) The MEDICAL COMMANDER or designated representative directs the replacement because the facilities and EQUIPMENT constitute a public health HAZARD or nuisance or no longer comply with the criteria upon which the facilities and EQUIPMENT were accepted;

(b) The MEDICAL COMMANDER or designated representative directs the replacement of the facilities and EQUIPMENT because of a change of ownership or operating agency (organization); or

(c) The facilities and EQUIPMENT are replaced in the normal course of operation.

12-2. Preventing Health Hazards, Provision for Conditions Not Addressed

a. If necessary to protect against public health HAZARDS or nuisances, the MEDICAL COMMANDER or designated representative may impose specific requirements in addition to the requirements contained in this bulletin.

b. The MEDICAL COMMANDER or designated representative WILL document the conditions that necessitate the imposition of additional requirements and the underlying public health rationale. This documentation WILL be provided to the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE and a copy WILL be maintained in the MEDICAL COMMANDER'S or designated representative's file for the FOOD ESTABLISHMENT.

Section II. VARIANCES

12-3. Modifications and Waivers

The MEDICAL COMMANDER or designated representative may grant a variance by modifying or waiving the requirements of this bulletin if, in his or her opinion, a health HAZARD or nuisance WILL not result from the variance. If a variance is granted, the MEDICAL COMMANDER or designated representative WILL require the following information for the FOOD ESTABLISHMENT'S records:

a. A statement of the proposed variance of the bulletin requirement citing relevant bulletin paragraph numbers.

b. An analysis of the rationale for how the potential public health HAZARDS addressed by the relevant bulletin paragraph WILL be alternatively addressed by the proposal.

c. A HACCP plan, if one is required and it is relevant to the variance requested, from the PERSON requesting the variance that includes the information required for a HACCP PLAN as specified in ¶ 12-7a.

12-4. Demonstration of Conformance with Approved Procedures*

If the MEDICAL COMMANDER or designated representative grants a variance as specified in ¶ 12-3, or a HACCP PLAN is otherwise required as specified in ¶ 12-7, the FOOD ESTABLISHMENT WILL—

a. Comply with the HACCP PLAN(S) and procedures that are submitted and APPROVED as a basis for the modification or waiver.

b. Maintain and provide to the MEDICAL COMMANDER or designated representative, upon request, records as specified in ¶¶ 12-8d and e that demonstrate that the following are routinely employed:

(1) Procedures for monitoring CCPs,

(2) Monitoring of the CCPs.

(3) Verification of the effectiveness of an operation or process.

(4) Necessary corrective actions if there is failure at a CCP.

Section III. PLAN SUBMISSION AND APPROVAL

12-5. When Food Establishment and Operating Plans are Required

a. Prepared plants and specifications. The PERSON-IN-CHARGE of a FOOD ESTABLISHMENT WILL submit properly prepared plans and specifications for review and approval to the MEDICAL COMMANDER or designated representative 30 days prior to—

(1) The construction of a FOOD ESTABLISHMENT;

(2) The conversion of an existing structure for use as a FOOD ESTABLISHMENT; or

(3) The remodeling of a FOOD ESTABLISHMENT or a change of type of FOOD ESTABLISHMENT or FOOD operation if the MEDICAL COMMANDER or designated representative determines that plans and specifications are necessary to ensure compliance with this bulletin.

b. Design review. The USACHPPM TG No. 194 SHOULD be used to—

(1) Evaluate existing FOOD ESTABLISHMENTS prior to remodeling or major renovation.

(2) Perform review of drawings, specifications, and solicitations for renovation and new construction.

12-6. Contents of the Plans and Specifications

The plans and specifications for a FOOD ESTABLISHMENT, including a HACCP PLAN as specified in ¶ 12-7, WILL include the following information to demonstrate conformance with this bulletin's provisions:

a. Intended menu.

b. Anticipated volume of FOOD to be stored, prepared, and sold or served by meal period or number of customers served.

c. Type of FOOD service (for example, sit down, carryout, customer demographics, age, or medical condition).

d. Proposed layout, mechanical schematics, construction materials, and finish schedules.

e. Proposed EQUIPMENT types, manufacturers, model numbers, locations, dimensions, performance capacities, and installation specifications.

f. Written standing operating procedures (SOPs) that reflect the knowledge specified in ¶ 2-2 and implement the requirements of this bulletin, including indication of how practices ensure that—

(1) The transmission of foodborne disease is prevented by managing job applicants and FOOD EMPLOYEES as specified in chapter 2, section II.

(2) FOOD is received from APPROVED sources as specified in ¶ 3-3.

(3) FOOD is managed so that the safety and integrity of the FOOD are protected from the time of delivery to the FOOD ESTABLISHMENT throughout its storage, preparation, and transportation to the point of sale or service to the CONSUMER.

(4) PHF is maintained (including freezing, cold holding, cooking, hot holding, cooling, reheating, and serving) in conformance with the temperature and time requirements specified in chapter 3, sections IV and V.

(5) WAREWASHING is effective, including assurance that the chemical solutions and exposure times necessary for cleaning and SANITIZING UTENSILS and FOOD-CONTACT SURFACES of EQUIPMENT are provided as specified in chapter 4, section VII.

(6) Records that are specified in ¶ 3-11 and 3-12 are retained for inspection.

g. Proposed program of training for the PERSONS-IN-CHARGE and FOOD EMPLOYEES pertaining to protecting public health and the safety and integrity of FOOD.

h. Other information that may be required by the MEDICAL COMMANDER or designated representative for the proper review of the proposed construction, conversion or modification, and procedures for operating a FOOD ESTABLISHMENT.

12-7. When an HACCP Plan is Required

a. The PERSON-IN-CHARGE of a FOOD ESTABLISHMENT WILL submit a properly prepared HACCP PLAN as specified in ¶ 12-6 to the MEDICAL COMMANDER or designated representative for approval before engaging in an activity that requires a HACCP PLAN and the relevant provisions of this bulletin if—

(1) Submission of a HACCP PLAN is required by

this bulletin;

(2) A variance is required as specified in ¶¶ 3-42*c*(2), 3-59, or 12-3;

(3) Raw or partially cooked FOOD is served to other than a HIGHLY SUSCEPTIBLE POPULATION as specified in ¶ 3-42*c*, or

(4) The MEDICAL COMMANDER or designated representative determines that a FOOD preparation or processing method requires a variance based on a plan submittal specified in ¶ 12-6, an inspection finding, or a variance request.

b. A FOOD ESTABLISHMENT WILL have a properly prepared HACCP PLAN as specified in ¶ 3-60 for REDUCED OXYGEN or modified atmosphere operations.

c. The Nutrition Care Division of military healthcare facilities is encouraged to develop HACCP PLANS for PHFs to comply with the Joint Commission on Accreditation of Healthcare Organization requirements. The Nutrition Care Division SHOULD seek the assistance of the MEDICAL COMMANDER or designated representative in coordinating the development, verification, and implementation of such HACCP programs.

12-8. Contents of an HACCP Plan

When an HACCP PLAN is required as specified in ¶ 12-7, the plan and specifications WILL contain the following information:

a. A categorization of the types of PHFs that are specified in the menu (such as soups and sauces; salads; and bulk, solid FOODS, such as MEAT roasts) or of other FOODS that are specified by the MEDICAL COMMANDER or designated representative.

b. A flow diagram by specific FOOD or category type identifying CCPs and providing information on the following:

(1) Ingredients, materials, and EQUIPMENT used in the preparation of that FOOD.

(2) Formulations or recipes that delineate methods and procedural control measures that address the FOOD safety concerns involved.

c. FOOD EMPLOYEE and supervisory training plans that address the FOOD safety issues of concern.

d. A statement of SOPs for the plan under consideration, including clearly identifying:

(1) Each CCP.

(2) The CRITICAL LIMITS (CLs) for each CCP.

(3) The method and frequency for monitoring and controlling each CCP by the FOOD EMPLOYEE designated by the PERSON-IN-CHARGE.

(4) The method and frequency for the PERSON-IN-CHARGE to routinely verify that the FOOD EMPLOYEE is following SOPs and monitoring CCPs.

(5) Action to be taken by the PERSON-IN-CHARGE if the CL for each CCP is not met.

(6) Records to be maintained by the PERSON-IN-CHARGE to demonstrate that the HACCP PLAN is properly operated and managed.

e. Additional scientific data or other information, as required by the MEDICAL COMMANDER or designated representative, supporting the determination that FOOD safety is not compromised by the proposal.

12-9. Confidentiality of Trade Secrets

The MEDICAL COMMANDER or designated representative WILL treat as confidential, in accordance with LAW, information that—

a. Meets the criteria specified in LAW for a trade secret, and

b. Is contained on inspection report forms or in the plans and specifications submitted as specified in ¶¶ 12-7 and 12-8.

12-10. Preoperational Inspections

a. The MEDICAL COMMANDER or designated representative WILL conduct one or more preoperational inspections to verify that the FOOD ESTABLISHMENT is constructed and equipped in accordance with the APPROVED plans and APPROVED modifications of those plans and is in compliance with LAW and this bulletin.

b. The FOOD ESTABLISHMENT WILL not be permitted to operate until the preoperational inspection is conducted and APPROVED by the MEDICAL COMMANDER or designated representative.

Section IV. INSPECTION OF FOOD ESTABLISHMENTS AND CORRECTION OF VIOLATIONS

12-11. Philosophy of Inspection

a. The goals of the FOOD safety and sanitation inspection programs are to ensure public health protection through FOOD safety, reduce the occurrence of foodborne illness, and ensure sanitary compliance. Ultimately, the responsibility for providing safe sanitary FOOD lies with the PERSON-IN-CHARGE of the FOOD ESTABLISHMENT.

b. Sanitation inspections and education programs are the primary tools the MEDICAL COMMANDER or designated representative has for identifying procedures,

practices, facilities, and EQUIPMENT that may be hazardous and for initiating actions necessary to correct deficiencies. These sanitary inspections serve the commander and the FOOD ESTABLISHMENT by—

(1) *Identifying potential problems and providing reasonable solutions to correct sanitation problems before outbreaks of foodborne illness occur.*

(2) *Identifying procedural, training, and management needs and providing training for FOOD SERVICE PERSONNEL.*

(3) *Assisting the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE in identifying deficiencies in EQUIPMENT and facilities.*

c. The MEDICAL COMMANDER or designated representative WILL place emphasis on those practices and procedures that have a direct bearing on the prevention of foodborne illness, as opposed to items that, although necessary for optimum FOOD service, are of lesser public health significance.

d. It is impossible to delineate every discrepancy and possible interpretation of requirements within this bulletin. Items that, in the opinion of the inspector, constitute a potential health HAZARD WILL be reported along with suitable recommendations, even though the items are not specifically addressed in this bulletin or any other Army publication.

12-12. Self Evaluations

Each FOOD ESTABLISHMENT supervisor or PERSON-IN-CHARGE WILL—

a. Perform a documented SELF EVALUATION of the FOOD ESTABLISHMENT once a week using the guidelines contained in this bulletin.

b. Keep records of documented SELF EVALUATIONS on file for at least 1 year.

c. Conduct undocumented SELF EVALUATIONS daily. These inspections SHOULD focus on time-temperature control of FOOD, personal hygiene, and FOOD handling practices.

12-13. Access to Food Establishments

The MEDICAL COMMANDER or designated representative WILL be permitted access to any FOOD ESTABLISHMENT at any time during normal operational hours to conduct sanitary inspections. The FOOD ESTABLISHMENT supervisor, PERSON-IN-CHARGE, or designated representative will accompany the MEDICAL COMMANDER or designated representative.

12-14. Inspection Types

a. Routine inspections of all FOOD ESTABLISHMENTS are conducted by the MEDICAL COMMANDER or designated representative. Routine inspections—

(1) May be announced or unannounced.

(2) Are formal sanitary inspections performed to ensure that all FOOD ESTABLISHMENT operations are in compliance with this bulletin.

b. Follow-up inspections are announced, limited formal sanitary inspections conducted by the MEDICAL COMMANDER or designated representative to ensure correction of CRITICAL deficiencies.

c. Comprehensive inspections of all FOOD ESTABLISHMENTS are conducted by the MEDICAL COMMANDER or designated representative. Comprehensive inspections may be announced or unannounced and SHOULD include FOOD ESTABLISHMENT support personnel and installation engineers.

(1) Comprehensive inspections are annual formal inspections designed to evaluate—

(a) The PHYSICAL FACILITIES and EQUIPMENT to determine compliance with this bulletin.

(b) The facilities' capability to support actual FOOD operations.

(2) *Example areas evaluated during a comprehensive inspection include, but are not limited to, plumbing, drainage, physical structure of PREMISES, ventilation, refrigeration capabilities, and UTENSIL and WAREWASHING capabilities.*

12-15. Inspection Frequency

a. Each FOOD ESTABLISHMENT WILL be inspected as frequently as necessary to determine and ensure compliance with requirements set forth in this bulletin. The MEDICAL COMMANDER or designated representative will develop and schedule sanitation inspections based on an evaluation and determination of the following:

(1) The FOOD ESTABLISHMENT is fully operating under an APPROVED and validated HACCP PLAN.

(2) The FOOD ESTABLISHMENT is assigned an inspection frequency based on a written risk-based inspection schedule that is uniformly applied throughout the military area of responsibility or installation. The Model Risk Assessment Plan for Scheduling Food Sanitation Inspections (app B), or equivalent risk-based system, SHOULD be used by the MEDICAL COMMANDER or designated representative to develop this inspection schedule.

b. Based on evaluation as specified in ¶ *a* above, FOOD ESTABLISHMENTS WILL be inspected at the following minimum frequencies:

(1) High-risk Operations: Monthly

(2) Moderate-risk Operations: Quarterly

(3) Low-risk Operations: Semiannually

c. Routine inspections may be substituted with interventions as specified in table 12-1, located at the end of this chapter. Interventions may include the following:

(1) *Full or modified HACCP training.* The MEDI-

CAL COMMANDER or designated representative SHOULD have formal HACCP training to use this intervention.

(2) *FORMAL FOOD SAFETY/SANITATION TRAINING for management and FOOD SERVICE PERSONNEL of the FOOD ESTABLISHMENT.* Training may be a standard written course, an in-service course tailored to the needs of the FOOD ESTABLISHMENT, or training as specified in chapter 2, section V. This intervention requires the participation of at least 50 percent of the management and FOOD SERVICE PERSONNEL at the FOOD ESTABLISHMENT.

(3) *Conference/Consultation visit.* A documented conference/consultation visit with the operator that results in a written agreement to correct an identified CRITICAL operation.

d. Follow-up inspections are not interventions. Follow-up inspections are those inspections conducted to verify compliance with previously documented deficiencies. All interventions completed WILL be thoroughly documented to substitute for an inspection.

e. The MEDICAL COMMANDER or designated representative may reduce the inspection frequency for FOOD ESTABLISHMENTS that involve only coffee service and UNPACKAGED or prepackaged FOOD that is classified as nonPHF (such as carbonated BEVERAGES) and snack FOOD (such as chips, nuts, popcorn, and pretzels.)

f. Inspection of civilian FOOD ESTABLISHMENTS frequented by military personnel may be conducted in conjunction with appropriate civilian health authorities. When a FOOD ESTABLISHMENT is suspected of presenting a foodborne illness risk to military personnel, performance of a joint inspection is recommended. When correction is not obtained through civilian channels, the MEDICAL COMMANDER or designated representative recommends to the commander that the FOOD ESTABLISHMENT be placed off limits.

g. Inspections of multiple-shift operations WILL be made during all periods of meal preparation, service, and cleanup. Normally the MEDICAL COMMANDER or designated representative may schedule a portion of the FOOD ESTABLISHMENT inspection for other than normal duty hours, including weekends.

h. Routine and comprehensive inspection forms SHOULD be used by the MEDICAL COMMANDER or designated representative when conducting the inspections. (See section V.)

12-16. Conducting Inspections

The MEDICAL COMMANDER or designated representative conducting the sanitary inspections—

a. WILL notify the PERSON-IN-CHARGE of the FOOD ESTABLISHMENT and ask that he or she, or an appropriate representative, accompany him or her through the FOOD ESTABLISHMENT.

b. WILL emphasize control of practices and conditions that have been associated with outbreaks of foodborne illness. This emphasis does not minimize the need to evaluate other areas or practices, but it allows effective use of resources in promoting and enforcing FOOD safety and sanitation programs. If the FOOD ESTABLISHMENT has implemented an APPROVED HACCP PLAN, inspections WILL focus on evaluating the effectiveness of, and compliance with, the HACCP program. (See app C.)

c. WILL make every effort to avoid interfering with the FOOD ESTABLISHMENT operation while conducting the sanitary inspection.

d. WILL explain to the management representative all findings and the ratings assigned to the PERSON-IN-CHARGE. Comments or discussions of problems SHOULD not be conducted in the presence of customers.

12-17. Rating Food Establishments

a. Potential problems in FOOD ESTABLISHMENTS SHOULD be resolved at the lowest level possible without compromising the health of customers. The PERSON-IN-CHARGE and the MEDICAL COMMANDER or designated representative SHOULD work as partners in ensuring safe, wholesome FOOD.

b. Ratings are only one tool used by inspectors to promote health and are somewhat subjective, so sound judgment is very important. It is critical to work as a team with FOOD ESTABLISHMENT management to effectively and efficiently resolve and eliminate potential health problems. Rating of sanitary conditions WILL be "Excellent," "Satisfactory," or "Unsatisfactory."

(1) Excellent ratings SHOULD be reserved for FOOD ESTABLISHMENTS demonstrating a level of sanitation above the expected standard.

(2) Satisfactory ratings are given when only minor noncritical discrepancies are noted.

(3) Unsatisfactory ratings are used when CRITICAL ITEMS are identified. The MEDICAL COMMANDER or designated representative WILL consider that FOOD ESTABLISHMENT'S phase of operation during the inspection, how long the deficiencies have existed, efforts to correct deficiencies, and the potential health risk if deficiencies are allowed to continue or the MEDICAL COMMANDER feels there are too many noncritical items identified that can lead to potential CRITICAL problems.

(a) This bulletin identifies all CRITICAL ITEMS with an asterisk (*). If a CRITICAL deficiency is noted but an unsatisfactory rating is not given, then an explanation WILL be included in the inspection report.

(b) Any IMMINENT HEALTH HAZARD noted during an inspection WILL be reported by immediately notifying the responsible authorities for immediate elimination.

12-18. Follow-up Inspections

a. If a FOOD ESTABLISHMENT is rated unsatisfactory, a follow-up inspection is required within 5 working days.

b. If the discrepancy that caused an unsatisfactory rating is corrected on the spot, and is not considered a repeated discrepancy, there is no need for re-inspection.

12-19. Imminent Health Hazard, Ceasing Operations

a. Except as specified in ¶ *b* below, a FOOD ESTABLISHMENT WILL immediately discontinue operations and notify the MEDICAL COMMANDER or designated representative if an IMMINENT HEALTH HAZARD exists due to emergencies (such as fires, floods, extended interruption of electrical or water service (greater than 2 hours), SEWAGE backup, misuse of POISONOUS or TOXIC MATERIALS, onset of an apparent foodborne illness outbreak, gross unsanitary occurrence or condition, or other circumstance) that may endanger public health.

b. A FOOD ESTABLISHMENT need not discontinue operations in an area of an ESTABLISHMENT that is unaffected by the IMMINENT HEALTH HAZARD.

12-20. Resuming Operations After an Imminent Health Hazard

a. If operations are discontinued as specified in ¶ 12-19 or otherwise according to LAW, the FOOD ESTABLISHMENT WILL obtain approval from the MEDICAL COMMANDER or designated representative before resuming any operation.

b. Raw or READY-TO-EAT PHF that has been exposed to temperatures outside the SAFE TEMPERATURE zone as specified in ¶ 3-54 for less than 4 hours, but has not been exposed to any known contaminants, may with approval of the MEDICAL COMMANDER or designated representative be served, provided it is—

(1) Rapidly reheated as specified in ¶ 3-48 for raw or READY-TO-EAT PHF; or

(2) Reconditioned based on the risks associated with the particular FOOD without compromising the health of the CONSUMER as specified in ¶ 3-66. Reconditioning may include the process of reworking or other process that reduces the HAZARDS to an acceptable level suitable for consumption. *VETCOM Policy Memorandum, Guide to the Salvage of Chilled/Frozen Foods Exposed to Refrigeration Failure, provides a science-based reference best applicable to power failures (in particular, loss of refrigeration).*

12-21. Timeframe for Correction

a. The FOOD ESTABLISHMENT WILL correct all CRITICAL violations at the time of inspection and implement corrective actions for an HACCP PLAN provision that is not in compliance with its CL or this bulletin. *Considering the nature of the potential HAZARD involved and the complexity of the corrective action needed, the MEDICAL COMMANDER or designated representative may agree to or specify a longer timeframe, not to exceed 5 calendar days after the inspection, for the FOOD ESTABLISHMENT to correct CRITICAL violations or HACCP PLAN deviations.*

b. The FOOD ESTABLISHMENT WILL correct noncritical violations by a date and time agreed to or specified by the MEDICAL COMMANDER or designated representative, but not to exceed 30 calendar days after the inspection.

12-22. Inspection of Atypical Food Service Food Establishments

Sanitary requirements for evaluation of FOOD service operations at child development center(s), including FCC homes, are contained in AR 608-10.

Section V. INSPECTION REPORTS

12-23. Inspection Forms

a. Routine and follow-up inspections. DA Form 5162-R (Routine Food Establishment Inspection Report) WILL be used for recording findings noted during routine and follow-up inspections. A sample DA Form 5162-R is shown in figures 12-1 and 12-2, located at the end of this chapter.

(1) The "Discrepancy Categories" section WILL include—

(a) A brief narrative description of deficiencies noted and keyed with specific paragraphs and sections of this bulletin. The narrative WILL specify the area in which the deficiency was noted. *For example, ¶ 3-53a-Cooked roast allowed to cool at ambient room temperature (76°F) (22°C). Product temperature at time of inspection (1630 hrs) was 92 °F (33 °C) after being removed from the serving line at 1330 hrs (3 hours earlier).*

(b) Corrective actions taken, or to be taken, on CRITICAL ITEMS, to include dispositions of FOOD items produced, stored, served, and sold under such conditions prior to corrective action.

(2) The completed original form WILL be provided to the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE. The PERSON-IN-CHARGE WILL—

(a) Complete the "Corrected By" column.

(b) Maintain the completed form on file at the inspected FOOD ESTABLISHMENT.

(3) A copy of the inspection form WILL be maintained on file by the appropriate inspection office.

b. Comprehensive Inspection Report. DA Form 5161-R (Comprehensive Food Establishment Inspection) WILL be used for recording findings noted during the annual comprehensive inspections. If additional marks are required, use DA Form 5161-1-R (Food Establishment Sanitation Inspection - Remarks Form). Samples of DA Form 5161-R and DA Form 5161-1-R are shown in figures 12-3 through 12-5, located at the end of this chapter.

(1) Results of the inspection can be used to establish scheduling for routine inspections. If inspection results are used to conduct re-inspections of unsatisfactory FOOD ESTABLISHMENTS, the inspector can reevaluate the overall condition of the FOOD ESTABLISHMENTS for future routine inspections. Comprehensive inspections SHOULD be conducted at least annually in all FOOD ESTABLISHMENTS.

(2) The inspection WILL cover the entire period of food preparation, service, and cleanup.

(3) The Installation, Building No., Establishment Designation blocks, and the Army Location Code (blocks 6 through 10) at the top of DA Form 5161-R WILL be completely filled in.

(4) The number of those items found to be in noncompliance SHOULD be circled and the specific deficiency underlined. Violation reference paragraph numbers are listed on the reverse side of DA Form 5161-R.

(5) Remarks, when required, SHOULD be used to fully explain those items requiring corrective action beyond the capability of the FOOD ESTABLISHMENT manager or those deficiencies not specifically or clearly addressed on the inspection form. As stated on the DA Form 5161-R, use DA Form 5161-1-R for remarks.

(6) CRITICAL deficiencies (noted by an asterisk) are identified to note deficiencies or procedures that WILL be corrected as soon as possible. A response to the MEDICAL COMMANDER within a specified number of days outlining what action has been taken to correct the deficiency SHOULD be required.

(7) The use of the numerical rating system WILL be at the discretion of the MEDICAL COMMANDER. When used, numerical ratings WILL be based on actual conditions noted with deficiency points deducted from the total points possible for the FOOD ESTABLISHMENT. No more than the stated weight (points) of a numbered inspection area WILL be deducted, regardless of the number of times a given deficiency is noted in a FOOD ESTABLISHMENT.

(8) The completed original forms WILL be provided to the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE. The PERSON-IN-CHARGE WILL keep the completed forms on file at the inspected FOOD ESTABLISHMENT.

(9) A copy of the inspection forms WILL be maintained on file by the appropriate inspection office.

12-24. Inspection Form Distribution

a. Copies of DA Form 5162-R, DA Form 5161-R, and DA Form 5161-1-R WILL normally be directed to the unit commander or the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE. Significant repeated discrepancies or unsatisfactory ratings WILL be reported to the next higher command level for the FOOD ESTABLISHMENT. Where correction of CRITICAL or repeated deficiencies are not obtained or is beyond the capability of the local installation commander, the conditions noted and recommended corrective actions WILL be summarized in a memorandum to the MACOM Surgeon. A copy of the completed and signed DA Form 5162-R, DA Form 5161-R, and DA Form 5161-1-R will be attached to the memorandum.

b. Applicable portions or copies of the DA Form 5162-R or DA Form 5161-R WILL be provided to the local installation support activities (Installation Commander, Engineers/Directorate of Engineering and Housing, Installation Supply, etc.) whenever coordination is needed for deficiency correction.

12-25. Troop Dining Food Establishments

a. When rating troop dining FOOD ESTABLISHMENTS, information copies of all DA Forms 5162-R and DA Forms 5161-R WILL be forwarded to the appropriate IFA.

b. When rating a contractor-operated FOOD ESTABLISHMENT, information copies of all DA Forms 5162-R and DA Forms 5161-R will be forwarded to the appropriate IFA and the appropriate COR.

c. To enhance awareness of contractor-operated FOOD ESTABLISHMENTS and maintain an open communication dialogue, the COR SHOULD forward copies of all evaluations involving FOOD safety and sanitation deficiencies at contractor-operated FOOD ESTABLISHMENTS to the MEDICAL COMMANDER or designated representative.

12-26. AAFES Food Establishments

a. Information copies of all unsatisfactory inspections for AAFES FOOD ESTABLISHMENTS within CONUS or in the Pacific WILL be forwarded to Commander,

AAFES, ATTN: Staff Veterinarian, SD-M/QAV, P.O. Box 660202, Dallas, TX 75266-0202. CONUS includes Alaska, Panama, and Puerto Rico. Pacific includes Hawaii, Japan, Korea, and other Pacific installations.

b. Information copies of all unsatisfactory inspections for AAFES FOOD ESTABLISHMENTS in Europe WILL be forwarded to Commander, AAFES-Europe, ATTN: Staff Veterinarian (EUR-VT), Unit #24580, APO AE 09245.

12-27. NAF Food Establishments

Information copies of unsatisfactory inspection reports of NAF dining FOOD ESTABLISHMENTS (officer, noncommissioned officer, and enlisted clubs, except AAFES) WILL be forwarded to the installation director of personnel and community activities.

12-28. USACHPPM

Information copies of all UNSATISFACTORY inspection reports, (AAFES, NAF, and nonappropriated dining FOOD ESTABLISHMENTS) WILL be sent to Commander, U.S. Army Center for Health Promotion and Preventive Medicine, 5158 Blackhawk Road, ATTN: MCHB-CS-OSD, Aberdeen Proving Ground, MD 21010-5403. These reports are evaluated to determine necessary changes or clarification, trends in FOOD safety and sanitation risk, and to assist in developing training programs by both the U.S. Army Medical Department and the U.S. Army Quartermaster Center and School.

Section VI. VENDING MACHINE ADMINISTRATIVE PROCEDURES

12-29. Approval

a. Authority to operate VENDING MACHINES dispensing PHF or hot or cold cup BEVERAGES may be granted by the installation commander based on MEDICAL COMMANDER or designated representative approval. The operator WILL provide the MEDICAL COMMANDER or designated representative with an HACCP PLAN or SOP for all phases of the vending operation. The HACCP PLAN or SOP WILL detail the types of FOOD dispensed, including source, and any special processing, such as acidification.

b. Medical approval may be obtained following satisfactory pre- and post-FOOD ESTABLISHMENT and EQUIPMENT installation inspections and HACCP PLAN or SOP review. The approval covers the VENDING MACHINE EQUIPMENT and location, transport system, supply, storage, servicing and SANITIZING facilities, and commissary or other FOOD ESTABLISHMENTS required to comply with the requirements of this bulletin. Approvals are not transferable.

12-30. Identity

The operator WILL conspicuously display the company name, complete mailing address, and service telephone number on a permanent label affixed to each machine or in a conspicuous location adjacent to a bank of VENDING MACHINES.

12-31. Operator Procedures

In addition to complying with the provisions of this bulletin, the VENDING MACHINE operator—

a. Maintains a list of all VENDING MACHINES and the route servicing schedule for all VENDING MACHINES operated within the jurisdiction of the MEDICAL COMMANDER or designated representative.

b. Maintains a complete address of each VENDING MACHINE LOCATION and of all commissaries or other FOOD ESTABLISHMENTS that service these VENDING MACHINES.

c. Provides the information in ¶¶ *a* and *b* above to the MEDICAL COMMANDER or designated representative, and keeps this information current.

d. Obtains MEDICAL COMMANDER or designated representative approval for each VENDING MACHINE LOCATION where PHF and hot and cold cup BEVERAGE VENDING MACHINES WILL be placed in operation.

e. Obtains MEDICAL COMMANDER or designated representative approval prior to any change in operations, including HACCP PLAN or SOP involving new types of VENDING MACHINES or conversions of existing machines to dispense products other than those for which the machines were APPROVED.

12-32. Suspension of Approval

The MEDICAL COMMANDER or designated representative may, without prior warning or notice, suspend approval to operate a VENDING MACHINE on the installation if the operation constitutes a HAZARD to public health.

a. When approval is suspended, the MEDICAL COMMANDER or designated representative WILL notify the operator by telephone and in writing. Vending operation WILL cease on initial notification.

b. Suspension of approval may be withdrawn following reinspection if correction of noted deficiencies has been accomplished.

12-33. Inspection Form Distribution, Vending Machine Activities

Information copies of unsatisfactory inspection reports of VENDING MACHINES WILL be forwarded to the operator and the VENDING MACHINE contracting officer.

Section VII. PREVENTION OF FOODBORNE DISEASE TRANSMISSION BY EMPLOYEES

12-34. Obtaining Medical Information for Investigation and Control

When the MEDICAL COMMANDER or designated representative has reasonable cause to believe that a FOOD EMPLOYEE has possibly transmitted disease; may be infected with a disease in a communicable form that is transmissible through FOOD; may be a carrier of infectious agents that cause a disease that is transmissible through FOOD; or is affected with a boil, an infected wound, or acute respiratory infection; he or she WILL—

a. Secure a confidential medical history of the EMPLOYEE suspected of transmitting disease or make other investigations as deemed appropriate.

b. Require appropriate medical examinations, including collection of specimens for laboratory analysis, of a suspected EMPLOYEE and other EMPLOYEES.

12-35. Restriction or Exclusion of Food Employee

Based on the findings of an investigation related to an EMPLOYEE who is suspected of being infected or diseased, the MEDICAL COMMANDER or designated representative may—

a. Issue an order to the suspected EMPLOYEE or PERSON-IN-CHARGE instituting one or more of the following control measures:

(1) Restrict the EMPLOYEE'S services in a FOOD ESTABLISHMENT to specific areas and tasks that present no risk of transmitting the disease.

(2) Exclude the EMPLOYEE from a FOOD ESTABLISHMENT.

b. Coordinate with the installation commander to suspend operation of the affected FOOD ESTABLISHMENT.

12-36. Restriction or Exclusion Order

Based on the findings of the investigation as specified in ¶ 12-34 and to control disease transmission, the MEDICAL COMMANDER or designated representative may, without prior warning, issue a memorandum of restriction or exclusion to a suspected EMPLOYEE or the PERSON-IN-CHARGE if the order—

a. States the reasons for the restriction or exclusion that is ordered.

b. States the evidence that the EMPLOYEE or PERSON-IN-CHARGE WILL provide in order to demonstrate that the reasons for the restriction or exclusion are eliminated.

c. States that the suspected EMPLOYEE or the PERMIT HOLDER may request an appeal by the MEDICAL COMMANDER or designated representative by submitting a timely written request as provided in this bulletin.

12-37. Release of Employee From Restriction or Exclusion

The MEDICAL COMMANDER or designated representative WILL release an EMPLOYEE from restriction or exclusion according to LAW and the following conditions:

a. An EMPLOYEE who was infected with *S. typhi* if the EMPLOYEE'S stools are negative for *S. typhi* based on testing of at least three consecutive stool specimen cultures that are taken—

(1) Not earlier than 1 month after onset,

(2) At least 48 hours after discontinuance of antibiotics, and

(3) At least 24 hours apart.

NOTE

If one of the cultures taken as specified in ¶ *a* above is positive, repeat cultures are taken at intervals of 1 month until at least three consecutive negative stool specimen cultures are obtained.

b. An EMPLOYEE who was infected with *Shigella* spp. or *E. coli* 0157:H7 if the EMPLOYEE'S stools are negative for *Shigella* spp. or *E. coli* 0157:H7 based on testing of two consecutive stool specimen cultures that are taken—

(1) Not earlier than 48 hours after discontinuance of antibiotics, and

(2) At least 24 hours apart.

c. An EMPLOYEE who was infected with hepatitis A virus if—

(1) Symptoms cease, or

(2) At least two blood tests show falling liver enzymes.

Table 12-1. Inspection and Intervention Frequency

Inspection Frequency	Routine Inspections[1]	Interventions
Semiannually	1	0[2]
Quarterly	4	0
	3	1
	2	2
Monthly	12	0
	11	1
	10	2
	9	3
	8	4
	7	5
	6	6

[1]At least one inspection WILL be an annual comprehensive inspection.
[2]Phone contact 6 months after the inspection to determine if the operation or menu has changed. New ownership or management, as well as some operation and menu changes, may require reclassification into a higher risk operation.

ROUTINE FOOD ESTABLISHMENT INSPECTION REPORT

For use of this form, see TB MED 530; the proponent agency is OTSG.

1. ESTABLISHMENT NAME

Burger Blast

2. ESTABLISHMENT ADDRESS

Bldg. 1301, R Street, FT Hope, LA

3. PURPOSE	4. RATING	5. FOLLOW-UP INSPECTION REQUIRED	6. NUMBER AND TYPE OF VIOLATIONS
[X] ROUTINE	[ ] EXCELLENT	[X] NO	0 CRITICAL
[ ] FOLLOW-UP	[X] SATISFACTORY	[ ] YES	4 NONCRITICAL
[ ] SELF EVALUATION	[ ] UNSATISFACTORY	REINSPECTION DATE (YYYYMMDD)	

7. WAREWASHING DATA		8. REFRIGERATOR/FREEZER UNIT TEMPERATURES		9. COLD OR HOT PHF TEMPERATURES	
		Type	°F	Food, Location	°F
a. MANUAL (1) SANITIZING TEMPERATURES (°F) AND LOCATIONS	180 Degrees F, Pot and Pan Sink	Reach-In	40	Hamburger Patties Reach-In Freezer	0
(2) CHEMICAL SANITIZERS (Type and Concentration)	Chlorine, Plastic Tray Sink, 150 ppm	Reach-In Freezer	-3	Thawed hamburger Reach-In	38
b. MECHANICAL (1) WASH CYCLE TEMPERATURE (°F)	N/A	Sandwich Prep.	43	Hamburgers Short-HoldingUnit	135
(2) FINAL RINSE TEMPERATURE (°F)	N/A	Milk Box	36	Chili Crock Pot	170
(3) CHEMICAL SANITIZERS (Type and Concentration)	N/A				
(4) FINAL RINSE TIME (Seconds)	N/A				

10. VIOLATIONS *(List critical first.)*

a. CRITICAL YES	a. CRITICAL NO	b. REPEAT YES	b. REPEAT NO	c. REFERENCE PARAGRAPH FROM TB MED 530	d. VIOLATION DESCRIPTION/REMARKS/CORRECTIVE ACTIONS	e. CORRECTED BY (Initials/Date)
	X		X	2-13	Prep. Cook had soiled uniform.	cmg 20010816
	X	X		6-3	Tile broken in serving line floor. Work order submitted.	cmg 20010818
	X		X	4-43	Wash temp. in pot and pan sink was 100 degrees F. Check temp. every 1/2 hour to maintain above 110 degrees F.	cmg 20010816
	X		X	3-37	Salad (not PHF) temp. was 50 degrees F and unprotected on self-serve bar. Provide tongs and sneezequard.	cmg 20010819

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Figure 12-1. Routine Food Establishment Inspection Report (Sample).

10. VIOLATIONS *(List critical first.) (Continued)*

a. CRITICAL		b. REPEAT		c. REFERENCE PARAGRAPH FROM TB MED 530	d. VIOLATION DESCRIPTION/REMARKS/CORRECTIVE ACTIONS	e. CORRECTED BY (Initials/Date)
YES	NO	YES	NO			

11a. INSPECTOR'S NAME AND SIGNATURE	11b. DATE OF INSPECTION *(YYYYMMDD)*	11c. TIME OF INSPECTION
SSG Bell	20010816	1300 hours
11d. INSPECTOR'S UNIT	**11e. UNIT'S TELEPHONE NUMBER**	
FT Hope MEDDAC	DSN 584-1040	
12a. ESTABLISHMENT REPRESENTATIVE'S NAME AND SIGNATURE		
Mrs Anne Gibson		
12b. ESTABLISHMENT REPRESENTATIVE'S TITLE	**12c. DATE RECEIVED *(YYYYMMDD)***	
Manager	20010816	

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Figure 12-2. Routine Food Establishment Inspection Report (Sample)—Continued.

COMPREHENSIVE FOOD ESTABLISHMENT INSPECTION

For use of this form, see TB MED 530; the proponent agency is the OTSG.

1. ESTABLISHMENT NAME	2. BUILDING NO.	3. ESTABLISHMENT ADDRESS *(Include Installation and MACOM)*
Consolidated Dining Hall	5158	H Street, FT Hope, TRADOC

4. PERSON-IN-CHARGE	5. COPY REPORT FURNISHED TO
MSG Sims	SSG Long

6. TYPE OF ESTABLISHMENT

- [X] 1. Troop Dining Facility
- [ ] 2. Cafeteria
- [ ] 3. Snack Bar
- [ ] 4. Hospital Dining Facility
- [ ] 5. Club
- [ ] 6. Other *(specify)*

7. RATING

- [ ] 1. Excellent
- [X] 2. Satisfactory
- [ ] 3. Unsatisfactory
- [ ] 4. Other *(specify)*

8. PURPOSE

- [ ] 1. Initial
- [X] 2. Routine
- [ ] 3. Follow-Up
- [ ] 4. Other *(specify)*

9. DURATION OF INSPECTION *(Minutes)*: 63

10. STANDARDS/REQUIREMENTS *(Indicate all that have not been met.) (Paragraphs of TB MED 530 that explain each requirement are listed on page 2.)*: 10, 11, 19 (Need test kit), 25 (Food scraps on shelf), 34, and 37 (tile broken in storeroom)

DESCRIPTION	PTS	DESCRIPTION	PTS	DESCRIPTION	PTS
FOOD		**FOOD EQUIPMENT AND UTENSILS** *(con't)*		**GARBAGE AND REFUSE DISPOSAL** *(con't)*	
*1 Approved source, sound condition, no evidence of spoilage	5	21 Wash and rinse water clean and proper temperature	2	35 Outside storage area properly constructed, clean; adequate container washing facilities	1
2 Original container, properly labeled	1	*22 Sanitization rinse is clean and at correct temperature, concentration, exposure time, and pressure	5	**INSECT, RODENT, OTHER ANIMAL CONTROL**	
FOOD PROTECTION		23 Wiping cloths: clean, restricted in use, stored in sanitizing solution	1	*36 No evidence of insects/rodents or other unauthorized animals	4
*3 PHF meets time/temperature requirements during storage, preparation, display, service, transport, and leftover	5	*24 Food contact surfaces of equipment and utensils: clean, sanitized between uses, free of abrasives/ detergents	4	**FLOORS, WALLS, AND CEILINGS**	
*4 Equipment to maintain product temperatures	4	25 Nonfood contact surfaces of equipment and utensils clean	1	37 Floors: in good repair, proper drainage, proper construction and materials, durable floor covering, dustless cleaning methods used	2
5 Thermometers provided, must be conspicuous and accurate	1	26 Proper storage, handling of clean, sanitized equipment and utensils	2	38 Walls, ceilings, attached equipment: constructed properly, in good repair, clean surfaces, dustless cleaning methods used	1
*6 Proper tempering/thawing of PHF	4	27 Single-service items: not reused, properly stored, and dispensed	2	**LIGHTING**	
*7 PHF offered for self-service, not re-served	3	**WATER**		39 Lighting adequate, fixtures shielded, protected	1
8 Food protected during storage, preparation, display, service, and transport	2	*28 Safe approved sources, adequate hot and cold water, adequate pressure	4	**VENTILATION**	
9 Handling of food/ice minimized	2	**SEWAGE**		40 Rooms and equipment vented as required	1
10 In use, food/ice utensils properly stored	1	*29 Adequate sewage and liquid waste disposal	4	*41 Filters and grease extracting equipment clean and properly installed	4
PERSONNEL		**PLUMBING**		**DRESSING ROOMS/AREAS**	
11 Training program records available	1	30 Installed, maintained properly	1	42 Clean, lockers provided, convenient location, used	1
12 Person-in-charge certified	3	*31 No cross-connection, potential back siphonage, backflow	5	**OTHER OPERATIONS**	
*13 No evidence of communicable diseases, skin infections, cuts, burns	5	**TOILET AND LAVATORY FACILITIES**		*43 Necessary toxic items properly stored, labeled, used	4
*14 Hands washed and clean, good hygiene practices	5	32 Adequate number, convenient, accessible, designed and installed properly	3	44 Premises: maintained free of litter, no unnecessary articles or equipment, maintenance equipment properly stored, authorized personnel only	1
15 Clean work garments: hair restraints; no unauthorized jewelry, watches	2	33 Toilet rooms enclosed with self-closing doors; in good repair; adequate handwashing and drying; waste receptacles	3	45 Clean/soiled linen properly stored	1
FOOD EQUIPMENT AND UTENSILS		**GARBAGE AND REFUSE DISPOSAL**		46 Complete separation of food operations from living/sleeping quarters, laundry	1
*16 Food/ice contact surfaces are nontoxic, properly designed, constructed, installed, located, and maintained	3	34 Containers or receptacles covered, adequate number, vermin-proof, emptied frequently, clean	3	47 Other *(specify)*	1
17 Nonfood contact surfaces properly designed, constructed, installed, located, and maintained	2			RATING SCORE IF USED 48 *(Sum 1-47; subtract from 118)*: 110	
18 Warewashing machine properly designed, constructed, installed, located, and maintained	2			FOLLOW-UP	
*19 Accurate temperature measuring devices and chemical test kits provided/used	3			49 Yes..... [ ]	
20 Utensils preflushed, scraped, soaked	1			50 No..... [X]	

*Critical deficiencies requiring immediate correction - Use DA Form 5161-1-R for additional remarks.

11. NAME AND SIGNATURE OF INSPECTOR	12. TIME OF INSPECTION	13. DATE OF INSPECTION *(YYYYMMDD)*
Tom McNeil	1400 hrs	20010815
14. NAME AND SIGNATURE OF PERSON-IN-CHARGE		**15. DATE RECEIVED *(YYYYMMDD)***
MSG Sims		20010815

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Figure 12-3. Comprehensive Food Establishment Inspection Report (Sample).

ITEM NUMBER	PARAGRAPHS*
1	3-3, 3-4, 3-7, 3-15
2	3-16, 3-33
3	3-5, 3-15, 3-48, 3-50, 3-52, 3-54
4	4-1, 4-17, 4-31, 7-5
5	4-31, 4-46, 10-11, 10-37
6	3-51, 9-2
7	3-33, 3-37, 3-54, 7-6, 10-24
8	3-37, 10-24
9	3-21, 3-23, 7-8, 8-7, 8-8
10	3-23 thru 3-25
11	2-18, 2-19
12	1-6, 2-2, 2-18
13	2-2, 2-4, 2-6, 2-19, 12-34, 12-35, 12-36, 3-15
14	2-3, 2-8, 2-10, 2-12, 2-14, 2-16
15	2-11, 2-12, 2-16, 4-33, 5-38, 5-39, 6-23, 7-4, 8-4, 10-18, 12-1
16	3-24, 4-14, 4-18, 4-19, 4-20
17	4-14, 4-19, 4-32
18	4-44, 4-46
19	4-31, 4-45
20	4-40, 4-42
21	4-41, 4-43, 4-46, 5-1, 7-11, 8-10, 8-15, 9-2, 10-17, 10-30
22	4-41, 4-43, 4-44
23	3-27, 4-36
24	3-24, 3-25, 4-5, 4-40
25	4-19
26	4-49, 4-50
27	7-9, 8-9, 10-29
28	4-46, 5-3, 5-4, 5-27, 7-10, 8-3, 10-30
29	5-12, 5-13, 5-28, 7-11, 8-10, 8-11
30	5-14, 8-14, 10-30
31	5-15, 5-16
32	5-20 thru 5-24
33	5-20 thru 5-25, 5-27, 5-28
34	5-28 thru 5-30
35	5-28 thru 5-30
36	5-29, 5-35
37	6-3 thru 6-8
38	6-9 thru 6-12
39	6-17, 6-18
40	5-24, 6-19 thru 6-22, 7-4, 8-4, 10-13
41	6-21, 6-22, 8-4
42	6-23
43	11-1 thru 11-16
44	3-62, 5-30, 6-15, 6-21, 6-23
45	5-38 thru 5-40
46	6-25

*Appropriate paragraph will depend on the actual violation identified. List is not all-inclusive, and other paragraphs may apply.

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Figure 12-4. Comprehensive Food Establishment Inspection Report (Sample)—Continued.

FOOD ESTABLISHMENT SANITATION INSPECTION - REMARKS FORM

For use of this form, see TB MED 530; the proponent agency is OTSG.

Form will be attached to and becomes a permanent part of DA Form 5161-R.

1. ESTABLISHMENT	2. DATE *(YYYYMMDD)*	3. INSPECTOR
Consolidated Dining Hall	20010815	Mr. T. McNeil

4. TEMPERATURE DATA

a. Refrigerator Temperatures		b. Freezer Temperatures		c. Hot Holding Temperatures		d. Food Temperatures	
UNIT	°F	UNIT	°F	UNIT	°F	UNIT	°F
Walk-In	37	Walk-In	-5	Serving Line	145	Roastbeef	140
Meat Thawing Box	40	Ice Cream	5	Hot Box	150	Clam Soup	145
Sandwich Bar	40	Reach-In	0	Hot Dog Cooker	145	Tuna Salad	39
				Soup Tureen	150		

5. WAREWASHING DATA

a. Manual	
(1) Sanitizing Temperature (°F)	120
(2) Chemical Sanitizer Type	Chlorine
(3) Chemical Sanitizer Concentration (ppm)	200 ppm
b. Mechanical	
(1) Wash Temperature (°F)	120
(2) Rinse Temperature (°F)	135
(3) Final Rinse Temperature (°F)	180
(4) Chemical Sanitizers (Type and Concentration) (ppm)	N/A
(5) Final Rinse Time (Seconds)	15

6. REMARKS

Plate temperature checked: 160 degrees F.

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Figure 12-5. Food Establishment Sanitation Inspection—Remarks Form (Sample)

APPENDIX A
REFERENCES

A-1. Army Regulations

AR 30-1
The Army Food Service Program.

AR 30-18
Army Troop Issue Subsistence Activity Operating Policies.

AR 40-2
Army Medical Treatment Facilities: General Administration.

AR 40-5
Preventive Medicine.

AR 40-657/NAVSUPINST 4355.4F/MCO P10110.31G
Veterinary/Medical Food Inspection and Laboratory Service.

AR 200-5
Pest Management.

AR 215-1
Morale, Welfare, and Recreation Activities and Nonappropriated Fund Instrumentalities.

AR 310-25
Dictionary of United States Army Terms.

AR 310-50
Authorized Abbreviations and Brevity Codes.

AR 420-10
Management of Installation Directorates of Public Works.

AR 420-49
Utility Services.

AR 608-10
Child Development Services.

A-2. Technical Bulletin (Medical)

TB MED 263
Medical Service, Identification of Inspected Foods.

TB MED 513
Guidelines for Evaluation and Control of Asbestos Exposure.

TB MED 561
Pest Surveillance.

TB MED 576
Sanitary Control and Surveillance of Water Supplies at Fixed Installations.

TB MED 577
Sanitary Control and Surveillance of Field Water Supplies.

A-3. Other Publications

AFPMB TIM 20
Pest Management Operations in Medical Treatment Facilities. (Available from AFPMB, Forest Glen Section, WRAMC, Washington, DC 20301-5001.)

AFPMB TIM 25
Devices for Electrocution of Flying Insects. (Available from AFPMB, Forest Glen Section, WRAMC, Washington, DC 20301-5001.)

DeCA Regulation 40-3
Operations Meat Department. (Available from Defense Commissary Agency (DeCA) Headquarters, Fort Lee, VA 23801.)

DOD 4160.21-M
Defense Materiel Disposition Manual.

ETL 1110-3-323
Carpet in Army Facilities. (Available from U.S. Corps of Engineers, ATTN: CEMP-EC, 20 Massachusetts Ave., N.W., Washington, D.C. 20314-1000.)

FC 21-150
Combat Field Feeding System (CFFS) Operations.

FM 4-25.12
Unit Field Sanitation Team

FM 8-34
Food Sanitation for the Supervisor.

FM 8-250
Preventive Medicine Specialist.

FM 8-505
Army Medical Field Feeding Operations.

FM 10-23
Basic Doctrine for Army Field Feeding and Class I Operations Management.

FM 10-23-1
Commander's Guide to Food Service Operations.

FM 21-10
Field Hygiene and Sanitation.

MIL HDBK 740
Dishwashing Operations.

MIL STD 175
Sanitary Standards for Equipment Methods for the Handling of Milk and Milk Products in Bulk Milk Dispensing Operations.

NAMA Publication M-4
NAMA 1998-1999 Listing of Certified Food and Beverage Vending Machines. (Available from NAMA, 20 N. Wacker Drive, Suite 3500, Chicago, IL 60606-3102.)

NFPA Standard 13
Installation of Sprinkler Systems. (This and the NFPA Standard listed below are available from the National Fire Prevention Association, Batterymarch Park, Quincy, MA 02269.)

NFPA Standard 96
Ventilation Control and Fire Protection of Commercial Cooking Operations.

NSF International Standard 2
Food Equipment. (This and the NSF International standards listed below are available from NSF International, ATTN: Publications, PO Box 130140, Ann Arbor, MI 48113-0140.)

NSF International Standard 3
Commercial Spray-Type Dishwashing and Glasswashing Machines.

NSF International Standard 4
Commercial Cooking, Rethermalization and Powered Hot Food Holding and Transport Equipment.

NSF International Standard 7
Commercial Refrigerators and Storage Freezers.

NSF International Standard 8
Commercial Powered Food Preparation Equipment

NSF International Standard 12
Automatic Ice Making Equipment.

NSF International Standard 18
Manual Food and Beverage Dispensing Equipment.

NSF International Standard 24
Plumbing System Components for Manufactured Homes and Recreational Vehicles.

NSF International Standard 25
Vending Machines for Food and Beverages.

NSF International Standard 26
Pot, Pan, and Utensil Commercial Spray-Type Washing Machines.

NSF International Standard 29
Detergent and Chemical Feeders for Commercial Spray-Type Dishwashing Machines.

NSF International Standard 37
Air Curtains for Entranceways in Food and Food Service Establishments.

NSF International Standard 52
Supplemental Flooring.

NSF International Standard 59
Mobile Food Carts.

TM 5-632/NAVFAC MO-310/AFM 9-16
Military Entomology Operational Handbook.

TM 5-634/NAVFAC MO-213/AFR 91-8
Solid Waste Management.

TM 5-810-5/AFMAN 32-1070
Plumbing.

USACHPPM TG No. 102
Guide for the Conduct of Installation Pest Surveillance Programs.

USACHPPM TG No. 138
Guide to Commensal Rodent Control.

USACHPPM TG No. 194
Environmental Health Aspects of Food Service Facilities Design Review.

USDA Publication MPT-2
Accepted Meat and Poultry Equipment. (This and the next publication is available from USDA, 14th and Independence Avenue, S.W., Washington, DC 20250.)

USDA Publication 1419
List of Proprietary Substances and Nonfood Compounds Authorized for Use Under USDA Inspection and Grading Programs.

7 CFR 42
Standards for Condition of Food Containers.

7 CFR 56
Grading of Shell Eggs and U.S. Standards, Grades, and Weight Classes for Shell Eggs.

7 CFR 59
Inspection of Eggs and Egg Products.

7 CFR 59.552
Cleaning and Sanitizing Equipment.

9 CFR 301
Subchapter A, Mandatory Meat Inspection.

9 CFR 317
Labeling, Marking Devices, and Containers.

9 CFR 318
Entry Into Official Establishments; Reinspection and Preparation of Products.

9 CFR 318.7
Approval of Substances for Use in the Preparation of Products.

9 CFR 319
Definitions and Standards of Identity or Composition.

9 CFR 352
Exotic Animals; Voluntary Inspection.

9 CFR 354
Voluntary Inspection of Rabbits and Edible Products Thereof.

9 CFR 362
Voluntary Poultry Inspection Regulations.

9 CFR 381
Poultry Products Inspection Regulations.

21 CFR 70
Color Additives.

21 CFR 101
Food Labeling.

21 CFR 130
Food Standards: General.

21 CFR 131
Milk and Cream.

21 CFR 133
Cheeses and Related Cheese Products.

21 CFR 135
Frozen Desserts.

21 CFR 136
Bakery Products.

21 CFR 137
Cereal Flours and Related Products.

21 CFR 139
Macaroni and Noodle Products.

21 CFR 145
Canned Fruits.

21 CFR 146
Canned Fruit Juices.

21 CFR 150
Fruit Butters, Jellies, Preserves, and Related Products.

21 CFR 152
Fruit Pies.

21 CFR 155
Canned Vegetables.

21 CFR 156
Vegetable Juices.

21 CFR 158
Frozen Vegetables.

21 CFR 160
Eggs and Egg Products.

21 CFR 161
Fish and Shellfish.

21 CFR 163
Cacao Products.

21 CFR 164
Tree Nut and Peanut Products.

21 CFR 165
Beverages.

21 CFR 166
Margarine.

21 CFR 168
Sweetners and Table Sirups.

21 CFR 169
Food Dressings and Flavorings.

21 CFR 170
Food Additives.

21 CFR 170.39
Threshold of Regulation for Substances Used in Food-Contact Articles.

21 CFR 171
Food Additive Petitions.

21 CFR 172
Food Additives Permitted for Direct Addition to Food for Human Consumption.

21 CFR 173
Secondary Direct Food Additives Permitted in Food for Human Consumption.

21 CFR 173.310
Boiler Water Additives.

21 CFR 173.315
Chemicals Used in Washing or to Assist in the Peeling of Fruits and Vegetables.

21 CFR 174
Indirect Food Additives: General.

21 CFR 175
Indirect Food Additives: Adhesives and Components of Coatings.

21 CFR 176
Indirect Food Additives: Paper and Paperboard Components.

21 CFR 177
Indirect Food Additives: Polymers.

21 CFR 178
Indirect Food Additives: Adjuvants, Production Aids, and Sanitizers.

21 CFR 178.1010
Sanitizing Solutions.

21 CFR 178.3570
Polyethylene Glycol (mean molecular weight 200-9,500).

21 CFR 179
Irradiation in the Production, Processing and Handling of Food.

21 CFR 179.39
Ultraviolet Radiation for the Processing and Treatment of Food.

21 CFR 180
Food Additives Permitted in Food or in Contact with Food on an Interim Basis Pending Additional Study.

21 CFR 181
Prior-Sanctioned Food Ingredients.

21 CFR 182
Substances Generally Recognized as Safe.

21 CFR 184
Direct Food Substances Affirmed as Generally Recognized as Safe.

21 CFR 186
Indirect Food Substances Affirmed as Generally Recognized as Safe.

21 CFR 189
Substances Prohibited From Use in Human Food.

29 CFR 1910
Occupational Safety and Health Standards.

29 CFR 1910.141
Sanitation.

40 CFR 141
National Primary Drinking Water Regulations.

40 CFR 152
Subpart I, Classification of Pesticides.

40 CFR 152.175
Pesticides Classified for Restricted Use.

40 CFR 185
Tolerance for Pesticides in Food.

50 CFR 17
Endangered and Threatened Wildlife and Plants.

7 USC 136(e)
Subchapter II, Environmental Pesticide Control.

21 USC 201
Federal Food, Drug, and Cosmetic Act

Unnumbered Publication
1997 ASHRAE Handbook – Fundamentals. (Available from the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), 1791 Tullie Circle, N.E., Atlanta, GA 30329.)

Unnumbered Publication
Architectural and Engineering Instructions Design Criteria. (Available from the Department of the Army, U.S. Army Corps of Engineers, ATTN: CEMP-EC, 20 Massachusetts Ave., N.W., Washington, D.C. 20314-1000.)

Unnumbered Publication
Directory of BISSC Registered Companies. (Available from Baking Industry Sanitation Standards Committee (BISSC), 1400 West Devon Ave., Suite 422, Chicago, IL 60660.)

Unnumbered Publication
Directory of ETL Listed Products, Section II. (Available from U.S. Corps of Engineers, ATTN: CEMP-EC, 20 Massachusetts Ave., N.W., Washington, D.C. 20314-1000.)

Unnumbered Publication
Directory of Grading Offices and Plants Operating Under USDA Poultry and Egg-Grading Programs. (Available from USDA, Agricultural Marketing Service, Poultry Programs, Grading Branch, Stop 0258, 1400 Independence Ave, S.W., Washington, DC 20250-0258.)

Unnumbered Publication
DOD Pest Management Materiel, Other Than Pesticides Listing. (Available from AFPMB, Forest Glen Section, WRAMC, Washington, DC 20301-5001.)

Unnumbered Publication
Food Code. (Available from the U.S. Department of Commerce, Technology Administration, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.)

Unnumbered Publication
Guide to the Salvage of Chilled/Frozen Foods Exposed to Refrigeration Failure. (Available from U.S. Army Natick, Research Development and Engineering Center, Natick, MA 01760-5000.)

Unnumbered Publication
Health Information for International Travel. (Available from Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954.)

Unnumbered Publication
Industrial Ventilation: A Manual of Recommended Practice. (Available from American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Dr., Suite 600, Cincinnati, OH 45240.)

Unnumbered Publication
Installation Manual for Food Service Equipment. (Available from NSF International, ATTN: Publications, PO Box 130140, Ann Arbor, MI 48113-0140.)

Unnumbered Publication
List of Plants Operating Under USDA Poultry and Egg-Grading and Egg Products Inspection Programs. (Available from USDA, Agricultural Marketing Service, Poultry Division, Grading Branch, 1400 Independence Avenue, S.W., Washington, DC 20250-0258.)

Unnumbered Publication
Listing of Food Equipment and Related Products, Components, and Materials. (Available from NSF International, ATTN: Publications, PO Box 130140, Ann Arbor, MI 48113-0140.)

Unnumbered Publication
Manual of Operations National Shellfish Sanitation Program, Part 2 – Sanitation of the Harvesting, Processing, and Distribution of Shellfish. (Available from FDA, Office of Seafood, Shellfish Sanitation Branch, Washington, DC 20204.)

Unnumbered Publication
Meat and Poultry Inspection Directory. (Available from Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954.)

Unnumbered Publication
Medical Environmental Disease Intelligence and Countermeasures. (Available from Armed Forces Medical Intelligence Center, Ft Detrick, 1607 Porter Street, Frederick, MD 21702-5004.)

Unnumbered Publication
Merle D. Pierson and Donald A. Corlett, Jr., *HACCP Principles and Applications*, Aspen Publishers, 1992.

Unnumbered Publication
NSF C-2 Special Equipment and/or Devices (Food Service Equipment). (Available from NSF International, ATTN: Publications, PO Box 103140, Ann Arbor, MI 48113-0140.)

Unnumbered Publication
Procedures to Investigate Foodborne Illness. (Available from the International Association of Milk, Food, and Environmental Sanitarians, Inc., P.O. Box 701, Ames, IA 50010.)

Unnumbered Publication
Recommended Field Evaluation Procedures for Spray-Type Dishwashing Machines. (Available from NSF International, ATTN: Publications, PO Box 103140, Ann Arbor, MI 48113-0140.)

Unnumbered Publication
Sanitation Standards for the Design and Construction of Bakery Equipment and Machinery. (Available from Baking Industry Sanitation Standards Committee (BISSC), 1400 West Devon Ave., Suite 422, Chicago, IL 60660.)

Unnumbered Publication
Standard for the Sanitary Design and Construction of Food and Beverage Vending Machines. (Available from the NAMA, 20 N. Wacker Drive, Suite 3500, Chicago, IL 60606-3102.)

Unnumbered Publication
Standard Methods for the Examination of Dairy Products. (Available from the American Public Health Association, Publication Sales, P.O. Box 753, Waldorf, MD 20604-0753.)

Unnumbered Publication
Underwriters Laboratories Inc. (UL), Directory, Food Service Equipment, Classified for Sanitation. (Available from Underwriters Laboratories, Inc., ATTN: Publication Stock, 333 Pfingsten Road, Northbrook, IL 60062-2096.)

Unnumbered Publication
Underwriters Laboratories Inc. (UL), Electrical Appliance and Utilization Equipment Directory. (Available from Underwriters Laboratories Inc., ATTN: Publication Stock, 333 Pfingsten Road, Northbrook, IL 60062-2096.)

Unnumbered Publication
VETCOM Policy Memorandum, 15 October 1999, subject: Guide to the Salvage of Chilled/Frozen Food Exposed to Refrigeration Failure

A-4. Prescribed Forms

Except where otherwise indicated below, the following forms are available on the Army Electronic Library (AEL) CD-ROM (EM 0001) USAPA Website (www.usapa.army.mil). Also DA Forms 5161-R, 5161-1-R, 5162-R, 7437-R and 7438-R can be locally reproduced on 8 ½ x 11 inch paper. A copy for reproduction purposes is located at the back of this regulation.

DA Form 5161-R (Prescribed in para 12-23)
Comprehensive Food Establishment Inspection

DA Form 5161-1-R (Prescribed in para 12-23)
Food Establishment Sanitation Inspection — Remarks Form

DA Form 5162-R (Prescribed in para 12-23)
Routine Food Establishment Inspection Report

DA Form 7437-R (Prescribed in Appendix B, Para B-2a)
Food Establishment Risk Assessment Survey

DA Form 7438-R (Prescribed in appendix C, para C-7a)
Hazard Analysis Critical Control Point Monitoring Report

DA Label 177 (Prescribed in para 3-55) (This form is available through normal supply channels)
Pre-Prepared Food

DA Label 178 (Prescribed in para 3-57) (This form is available through normal supply channels)
Leftover-Use within 24 hours

A-5. Referenced Forms

This section contains no entries.

APPENDIX B

MODEL RISK ASSESSMENT PLAN FOR SCHEDULING FOOD SANITATION INSPECTIONS

B-1. Abstract

Risk assessment models provide a systematic approach to determine the frequency of inspections and other interventions for retail FOOD ESTABLISHMENTS. The model risk assessment plan outlined in this appendix is based on inherent risks associated with specific FOOD ESTABLISHMENTS and the knowledge and understanding of factors that cause foodborne illnesses. Incorporation of this plan WILL optimize inspection effectiveness and improve the allocation of personnel and other resources.

B-2. Method

a. The frequency of sanitation inspections may be determined based on the risk categorization of FOOD ESTABLISHMENTS. Risk categorization is determined by evaluating and calculating six risk factors for each FOOD ESTABLISHMENT using a DA Form 7437-R (Food Establishment Risk Assessment Survey). A sample DA Form 7437-R is shown in figures B-1 and B-2, located at the end of this appendix.

b. The FOOD ESTABLISHMENTS are then identified as either a high risk FOOD ESTABLISHMENT, medium risk FOOD ESTABLISHMENT or low risk FOOD ESTABLISHMENT. These six risk factors and scoring methods are—

(1) Factor I, FOOD Property (block 6 on DA Form 7437-R) - FOOD and its components may allow FOOD to become a vehicle for, or a source of, foodborne illness.

(a) Factor I takes into consideration the properties associated with the FOOD (for example, time-temperature relationships; acidity or alkalinity (pH); a_w; product ingredients, such as salts and preservatives; and common micro flora associated with the product or its environment).

(b) Factor I is divided into six sections. Each section contains a list of menu items and is assigned a number value located in the column to the right of the menu items. Award the number value for all yes responses in this section and total the number value for sections a through f to obtain the total number value for Factor I.

(c) A maximum value of 23 is possible for Factor I. For example, a value of six is added to the total if the FOOD ESTABLISHMENT serves raw shellfish and sushi (it is not cumulative) and a value of four is added to the total if the FOOD ESTABLISHMENT serves fresh green salads. The total number value for Factor I would be 10.

(2) Factor II, Population Served (block 7 on DA Form 7437-R) - Specific populations, such as the young, the aged, and or the infirmed, are predisposed to illness caused by foodborne pathogens or toxins. Additionally, the larger the population served and the greater number of meals and volume prepared, the higher the risk of an outbreak of foodborne illness (see operational risks - Factor IV).

(a) Factor II is divided into two sections. Section a contains a listing of the total number of meals served, and section b lists the typical patrons served. Similar to Factor I, award a number value for all yes responses in this section, and total the number value for sections a and b to obtain a number value for Factor II.

(b) A maximum value of 32 is possible for Factor II. For example, a value of six is added if the FOOD ESTABLISHMENT serves 300-600 meals per day, and a value of ten is additionally added when the patronage served is considered a HIGHLY SUSCEPTIBLE POPULATION. The total number value for Factor II would be 16.

(3) Factor III, FOOD ESTABLISHMENT History (block 8 on DA Form 7437-R) - FOOD ESTABLISHMENT history is based on CRITICAL violations noted on all routine inspections from the previous 12-month period, validated customer sanitation complaints, and turnover of the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE.

(a) Factor III is divided into three sections. Each section contains a historical description and is assigned a number value. Similar to previous factors, award a number value for all yes responses and total the number value for sections a through c to obtain a number value for Factor III.

(b) A maximum value of 18 is possible for Factor III. For example, a value of eight is added if the FOOD ESTABLISHMENT has two unsatisfactory inspections within the last 12-month period, and a value of five is additionally added due to a recent turnover in FOOD ESTABLISHMENT'S PERSON-IN-CHARGE. The total number value for Factor III would be 13.

(4) Factor IV, FOOD ESTABLISHMENT Operation (block 9 on DA Form 7437-R) - Operational risks are those risks that exist due to processes or procedures that influence survivability of microorganisms (for example, cooking, cooling, storage, multiple handling steps, remote feeding, and TEMPORARY FOOD ESTABLISHMENTS).

(a) Factor IV is divided into five sections. Similar to above factors, award a number value for all yes

responses and total the number value for sections a through e to obtain a number value for Factor IV.

(b) A maximum value of 27 is possible for Factor IV. For example, due to the population served, a FOOD ESTABLISHMENT prepares large batches of beef stew using a cook-chill-reheat process. A value of six is added for the FOOD ESTABLISHMENT for cooking PHF. Additionally, a value of six is added for the HAZARDS associated with the controlled chill-down step, and an additional value of six is added for the reheating phase. The total number value for Factor IV would be 18.

(5) Factor V, FOOD ESTABLISHMENT Facilities and EQUIPMENT (block 10 on DA Form 7437-R) - To minimize food-borne illness risks, FOOD ESTABLISHMENTS WILL possess adequate and functional EQUIPMENT to support its operation.

(a) Factor V is divided into four sections with each section describing an inadequate facility or the lack of EQUIPMENT necessary for a safe operation. Similar to the above factors, award a number value for all yes responses and total the number values for sections a through d to obtain a number value for Factor V.

(b) A maximum value of 20 is possible for Factor V.

(6) Factor VI, Training Credit (block 11 on DA Form 7437-R) - Credit is awarded to FOOD ESTABLISHMENTS that actively educate their PERSONS-IN-CHARGE and employees in FOOD safety and sanitation.

(a) To receive credit, the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE/supervisor WILL be certified as specified in ¶¶ 2-2*a*(2) *(b)* and 2-18. To receive credit for EMPLOYEE training, all FOOD service EMPLOYEES WILL complete an EMPLOYEE training program as specified in ¶ 2-19. Award a number value for all yes responses and total the number value for sections a and b to obtain a number value for Factor VI.

(b) A maximum of ten (10) is possible for Factor VI, and this represents the Total Credit Score.

c. Add Factors I through V (blocks 6 through 10 on DA Form 7437-R) number values to obtain the Gross Composite Score. Subtract the Training Credit Score obtained in Factor VI (block 11 on DA Form 7437-R) (see ¶ *b* (6) above) from the Gross Composite Score to determine the Adjusted Score. The Adjusted Score is used to determine the risk category of the FOOD ESTABLISHMENT.

B-3. Food Establishment Risk Category

The three (3) risk categories of FOOD ESTABLISHMENTS based on calculated risk factors are—

a. High Risk FOOD ESTABLISHMENT - FOOD ESTABLISHMENT operations that through the type of FOODS prepared and served, population served, previous inspection history, and or operational risks present an ABOVE AVERAGE risk for potential foodborne illness. FOOD ESTABLISHMENTS with an Adjusted Score of 41 *or greater* are categorized high risks and are inspected monthly. One of these inspections SHOULD be a comprehensive inspection to evaluate the PHYSICAL FACILITY AND EQUIPMENT.

b. Moderate Risk FOOD ESTABLISHMENT - FOOD ESTABLISHMENT operations that through the type of FOOD prepared and served, population served, previous inspection history, or operational risks present an AVERAGE risk for potential foodborne illness. FOOD ESTABLISHMENTS with an Adjusted Score of *15 through 40* are inspected at least quarterly. One of these inspections SHOULD be a comprehensive inspection to evaluate the PHYSICAL FACILITY and EQUIPMENT.

c. Low Risk FOOD ESTABLISHMENT - FOOD ESTABLISHMENT operations that through the type of FOOD prepared and served, population served, previous inspection history, or operational risks present a MINIMUM risk for potential foodborne illness. FOOD ESTABLISHMENTS with a risk analysis Adjusted Score of 14 or less are inspected semiannually. One of these inspections SHOULD be a comprehensive inspection to evaluate the PHYSICAL FACILITY and EQUIPMENT as part of the entire inspection.

B-4. Implementation

a. FOOD ESTABLISHMENT Risk Assessment Surveys are conducted by environmental science officers, preventive medicine specialists, or civilian sanitarians when each new FOOD ESTABLISHMENT opens or annually for existing FOOD ESTABLISHMENTS. Survey information is recorded on DA Form 7437-R.

b. The MEDICAL COMMANDER or designated representative WILL reassess the facility risk score and risk category annually to evaluate changes that affect the risk category assignment. This review SHOULD include verification of the menu and operations and recalculation of the risk score. The risk assessment procedure and resulting risk category SHOULD be discussed with the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE. An electronic database may be used at the local level to allow ease of retrieval and referral of applicable data. The MEDICAL COMMANDER or designated representative SHOULD also consider outside factors that may influence inspection schedules (for example, PERSON-IN-CHARGE and personnel turnover).

c. The original DA Form 7437-R WILL be maintained on file by the appropriate inspection office.

d. A copy of the completed DA Form 7437-R WILL be provided to the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE and WILL be maintained on file at the evaluated FOOD ESTABLISHMENT.

FOOD ESTABLISHMENT RISK ASSESSMENT SURVEY

For use of this form, see TB MED 530; the proponent agency is OTSG.

1. ESTABLISHMENT NAME
Patient Tray Service

2. ESTABLISHMENT ADDRESS
Bldg. 15, FT Hope Community Hospital, FT Hope, LA

3. TELEPHONE NUMBER	4. HOURS OF OPERATION
DSN 584-3010	0400 - 2200

5. RISK CATEGORY (Points are the score from Block 12.)

- [X] High Risk Food Establishment — 41 or above
- [ ] Moderate Risk Food Establishment — 15 - 40
- [ ] Low Risk Food Establishment — 14 or less

RISK FACTORS	YES	NO	POINT VALUE *(For Yes Response)*	AWARDED POINTS
6. FOOD PROPERTY: Properties of food risks that are common to a specific food or group of foods that are known to contribute to the likelihood of foodborne illness. Various levels of risk are associated with specific foods.				
a. Raw or undercooked protein-rich foods (e.g., shellfish, sushi, finfish, Carpaccio, Steak Tartar, or poultry).		X	8	
b. Game animals				
(1) Wild		X	8	
(2) Commercially raised		X	5	
c. Stuffed foods (e.g., pasta, meat, or poultry).	X		5	5
d. Fully cooked protein-rich foods (e.g., roast beef, prime rib, steak, pork, ground meat, finfish, or fresh shellfish).	X		5	5
e. Prepared items (e.g., gravy; sauces; stews and soups; beans; refried beans; rice; cooked pasta; tofu/soy products; French toast; omelettes; cook-to-order eggs; quiche; potato, macaroni, or tuna salad; or PH ethnic foods).	X		5	5
f. Dairy products (e.g., milk, cheese, or butter).	X		4	4
g. Processed items (e.g., canned or frozen finfish/shellfish, deli meats, cream pies and pastries, fresh/frozen pizza, or hotdogs).	X		3	3
h. Cooked and raw fruits and vegetables.	X		3	3
i. Pre-prepared items (e.g., heat and serve sandwiches, frozen dinners, or non-dairy beverages).	X		3	3
j. Vending and snack foods (e.g., canned soda, canned soups, candy, chips, and other non-PHF).	X		0	0
k. Operational rations				
(1) Unitized group ration (e.g., heat and serve, A, B, and T).		X	4	
(2) Individual rations (e.g., MREs, cold weather, survival, and long-range patrol).		X	3	
			TOTAL	28
7. POPULATION SERVED: Specific populations are more likely to develop foodborne illness based on age and environment. Likelihood of foodborne illness also increases with number of meals served.				
a. Meals served per day				
(1) >600		X	10	
(2) 300 - 600		X	6	
(3) 150 - 299		X	4	
(4) <150	X		2	2
b. Typical patronage				
(1) Highly susceptible population: infants or children (less than 5 years of age), elderly, or infirmed who are fed at or from day care, elementary schools, retirement homes, convalescent centers, and hospitals. (This category considers population and location where food is prepared or served.)	X		10	10
(2) Military personnel during deployments or extended (>2 weeks) field training exercises.		X	10	
(3) All others (general population).	X		0	0
			TOTAL	12

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Figure B-1. Food Establishment Risk Assessment Survey (Sample).

RISK FACTORS	YES	NO	POINT VALUE *(For Yes Response)*	AWARDED POINTS
8. FOOD ESTABLISHMENT HISTORY: Inspection and personnel histories provide insight as to where resources and training should be directed.				
a. Two or more unsatisfactory inspections in the previous 12-month period.		X	8	
b. Two or more validated customer sanitation complaints within last 12 months.		X	5	
c. Turnover of persons-in-charge and supervisory personnel within the last 6 months.	X		5	5
			TOTAL	5
9. FOOD ESTABLISHMENT OPERATION: Operational risk associated with specific food or group of foods known to contribute to the likelihood of foodborne illness. Various levels of risk are associated with specific foods.				
a. Temperature-controlled processes (e.g., cooking and holding PHFs, either hot or cold).	X		6	6
b. Re-heating leftovers and pre-prepared PHFs.		X	6	
c. Cooling of PHFs.	X		6	6
d. Manual preparation of ready-to-eat foods (e.g., sandwiches, salads, or slicing meats).	X		5	5
e. Remote, satellite, or field feeding (to include transport of PHFs).	X		4	4
			TOTAL	21
10. FOOD ESTABLISHMENT FACILITIES AND EQUIPMENT				
a. Inadequate handwashing facilities. (Use of field expedient handwashing facilities is acceptable.)		X	5	
b. Inadequate refrigeration/cooling equipment.		X	5	
c. Inadequate heating/hot holding/cooking equipment.		X	5	
d. Inadequate dishwashing and pot and pan washing facilities and equipment.		X	5	
			TOTAL	
	GROSS COMPOSITE SCORE (Sum of Totals in 6 - 10)			66
11. TRAINING CREDIT				
a. Food Service Manager(s) certified (available and current).	X		-5	-5
b. Food Employee Training Program in place which covers food safety and sanitation. Employee records must be available and current.	X		-5	-5
	TOTAL CREDIT SCORE			-10
	12. ADJUSTED SCORE (Gross Composite Score minus (-) Total Credit Score)			56

13. REMARKS
Problem with hot-holding carts. High-risk population includes cardiac patients and infants.

14a. NAME, JOB TITLE, AND SIGNATURE OF ASSESSOR SGT Brown, NCOIC	14b. DATE *(YYYYMMDD)* 20010814
15a. NAME AND SIGNATURE OF ENVIRONMENTAL HEALTH SUPERVISOR Mr. T. Roth	15b. DATE *(YYYYMMDD)* 20010814

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Figure B-2. Food Establishment Risk Assessment Survey (Sample)—Continued.

APPENDIX C

HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP) GUIDELINES

Section I. INTRODUCTION

C-1. Background

a. HACCP is a technique and a thought process that treats storage, preparation, and FOOD service as a continuous system. This system is broken down into logical components. Each is evaluated by principles of risk analysis. The premise is simple: If each step of the process is carried out correctly, the end product WILL be safe FOOD. Although some recent modifications have changed the order of the seven fundamental principles, the concept initially outlined by the National Advisory Committee on Microbiological Criteria for Foods remains the same. The seven principles for the establishment of any HACCP PLAN are —

(1) Principle 1 – Assessment of HAZARDS and risks.

(2) Principle 2 – Determination of the CCP(s).

(3) Principle 3 – Determination of the CL for each CCP(s).

(4) Principle 4 – Establishment of procedures to monitor the CCP(s).

(5) Principle 5 – Establishment of corrective actions when limits of the CCP(s) are not met.

(6) Principle 6 – Establishment of an effective documentation system.

(7) Principle 7 – Establishment of procedures to verify that the HACCP PLAN is working.

b. HACCP is not new. It is a process of FOOD safety that was developed in the 1960's. When the National Aeronautics and Space Administration (NASA) began to send people into space, the agency was not comfortable with standard quality control techniques. Conventional inspections and end product destructive testing were deemed inappropriate for the space agency's needs. Traditional FOOD safety systems were seen as inadequate and expensive for the exceptional quality that would need to be assured. NASA's original FOOD safety system and common procedures were mostly reactive. HACCP is first and foremost a proactive concept.

c. Using HACCP requires inspection agencies and FOOD ESTABLISHMENTS to —

(1) Have a knowledge base of foodborne diseases and documented factors that contribute to most outbreaks.

(2) Use risk assessment techniques to identify and prioritize HAZARDS.

C-2. Definitions

Before proceeding any further with this topic, you WILL understand the following key terms and their intended definitions.

a. CONTROL – To manage the conditions of an operation to maintain compliance with established criteria (CL).

b. CONTROL POINT – Any point, step, or procedure at which biological, physical, or chemical HAZARDS can be controlled.

c. CORRECTIVE ACTION – Procedures that must be followed when the process/operation is out of control or established CLs cannot be met.

d. CRITICAL CONTROL POINT (CCP) – Any point or procedure in a specific FOOD system at which controls can be applied to prevent, eliminate, or reduce a HAZARD to acceptable levels.

e. CRITICAL LIMIT (CL) – One or more prescribed tolerances that WILL be met to ensure that a CCP effectively eliminates or controls a microbiological, physical, or chemical HAZARD.

f. DEVIATION – Failure to meet a required CL for a CCP.

g. HACCP PLAN – The written document that delineates the formal procedures to be followed in accordance with acceptable HACCP principles.

h. HACCP SYSTEM – The FOOD safety system that is developed by the implementation of HACCP principles.

i. HAZARD – Any biological, chemical, or physical property that may cause an unacceptable CONSUMER health risk.

j. MONITORING – A planned sequence of observations or measurements of CLs designed to produce an accurate record and to ensure that product safety is maintained.

k. PREVENTIVE MEASURE – Physical, chemical, or other factors that can be used to control and identify health or injury HAZARDS.

l. RISK – An estimate of the likely occurrence of a HAZARD or danger. The probability of an undesirable event that would result in an illness or death.

m. SENSITIVE INGREDIENT – Any ingredient historically associated with a known microbiological or chemical HAZARD and for which there is a reason for concern.

n. SEVERITY – The seriousness of the consequences of the results of a FOOD safety HAZARD. Severity can reflect susceptibility of CONSUMERS to foodborne illness as well as seriousness of illness.

o. SEQUELAE – The conditions or symptoms associated with an illness or disease.

p. VERIFICATION – Methods, procedures, and tests used to determine if the —

(1) HACCP system is in compliance with the HACCP PLAN, and or

(2) HACCP PLAN needs to be modified.

C-3. Uses of HACCP

a. HACCP may be used by the MEDICAL COMMANDER or designated representatives under the following uses:

(1) Application of HACCP to more effectively identify CRITICAL HAZARDS during routine inspections.

(2) Consultation with FOOD ESTABLISHMENTS, when requested.

(3) Conducting FOOD SAFETY TRAINING.

(4) Providing review of internal industry HACCP PLANS, CCPs, and monitoring procedures for high risk PHF.

(5) To "study" the few selected, high risk FOOD ESTABLISHMENTS for purposes of investigation and/or training.

(6) Application of HACCP during epidemiological investigations.

(7) Application of HACCP principles during the facility plan review and EQUIPMENT evaluation process.

(8) To prioritize allocation of personnel and resources.

b. Do not confuse the regulatory use of HACCP, which is intended to assist in the discovery of CRITICAL HAZARDS and monitoring of CCPs, with the establishment of an HACCP PLAN. Regulatory use of HACCP for purposes of learning about a FOOD or FOOD ESTABLISHMENT is somewhat different than setting up an internal HACCP system. FOOD ESTABLISHMENTS have the primary responsibility for establishing their internal HACCP PLANS.

Section II. HACCP APPLICATION

C-4. HACCP Application in Retail Food Establishments

Prior to beginning to develop or review a HACCP PLAN, the MEDICAL COMMANDER or designated representative SHOULD —

a. Contact the supervisor of the subject FOOD ESTABLISHMENT to —

(1) Identify the PERSON-IN-CHARGE. This SHOULD be someone with the authority to make important decisions about the operation of the FOOD ESTABLISHMENT.

(2) Set up an initial meeting.

(3) Discuss the intent of the HACCP study/verification/audit, what it is to be used for, and how it WILL help the operator. Make sure that the operator understands your expectations and goals.

(4) Inform the operator of your procedures.

(5) Get a copy of the menu or stock listing (shopettes).

(6) Ask questions about preparation times and schedules.

(7) Set up an appointment for the first study visit. This may be a time when a particular FOOD in question is being prepared.

b. Assemble a HACCP team. This team is comprised of all key personnel involved in the processing/handling of the FOOD item along with others who have specific knowledge and expertise appropriate to the product. The strength of this team is its diversity – all individuals are vital and no single individual SHOULD develop or operate the entire HACCP program.

C-5. Beginning the HACCP Review

Once the team is assembled, it is important to begin the HACCP review by starting with the first principle.

a. Principle 1 – Conduct HAZARD Analysis/Risk Assessment.

(1) *Perform menu or stock listing analysis.* Begin this principle by performing a menu or stock listing analysis and asking questions about the FOOD, its ingredients, processing steps, and intended CONSUMER. Become familiar with the type of operation and choose FOODS to follow. The FOODS you WILL be initially interested in WILL usually be major menu items that are PHFs requiring multiple or complex preparation. Steps in reviewing the menu/stock listing include:

(a) Discussing the menu/stock listing with the operator. Ask questions about types of FOOD services, preparation, times, volume as measured by meals served, cooling, and handling.

(b) Identifying PHFs. Compare with known POTENTIALLY HAZARDOUS interpretations. Test FOODS, if necessary, for a_w and pH values.

(c) Identifying FOODS that have been implicated in past outbreaks, locally or nationally.

(d) Discussing PERSON-IN-CHARGE and EMPLOYEE FOOD service experience with specific menu items and past history of reportable diseases and illnesses.

(2) *Chart FOOD flows.* Charting FOOD flows is the next crucial step in any HACCP. Flow of FOOD WILL be

followed from beginning to end. This may be from farm to table or from delivery to service. The inspection organization has to determine the extent of the analysis. Some of the steps may be determined by questioning, but most SHOULD be directly observed. Try a combination of asking enough questions to understand the process and "fading into the woodwork" so EMPLOYEES WILL carryout their usual routines. Avoid interfering or being obtrusive. The MEDICAL COMMANDER or designated representative SHOULD determine beforehand when to intervene if unsafe practices are observed. **Remember that the purpose of charting FOOD flow is to provide a clear, but simple, description of the steps involved in the FOOD process.** The following steps outline the procedures for charting FOOD flows:

(a) Start at a logical beginning. This may be at the ordering phase of raw products or at receipt delivery. For some items, multiple ingredients may mean that there are several beginnings.

(b) Identify each process step with a box and name (see fig C-1, located at the end of this appendix).

(c) Write down actual information and observations for each step (see fig C-2, located at the end of this appendix) for —

1. Time.
2. Temperature.
3. Handling observations.
4. Possible contamination source.
5. Personal hygiene.
6. Ingredients.
7. Any other relevant notes.

(d) Connect each operation with a flow arrow (see fig C-3, located at the end of this appendix).

(e) Chart any loops or side operations (see fig C-4, located at the end of this appendix).

(f) Take continuous measurements of observations during the process. Examples include temperatures during cooking, cooling, reheating, and cold or hot holding. Graph any relevant data.

(3) *Identify and evaluate the HAZARDS.* The basis of HACCP is prevention. Use the FOOD flow diagrams (figs C-3 and C-4), experience, epidemiological data, and technical research/literature to evaluate the likelihood that HAZARDS exist. The HAZARD may be chemical, physical, or microbiological. Tables C-1 through C-3 (located at the end of this appendix) provide examples of HAZARD listings. Some flows can contain a high degree of complexity with many potential HAZARDS while others are simple. Usually complex flows also contain frequent product handling, exposure to ideal growth temperatures for bacteria, and longer storage periods. Using the prepared flow charts can aid in identifying possible HAZARDS and preventive measures (see table C-4 located at the end of this appendix). The HAZARD/risk assessment SHOULD include —

(a) Intended CONSUMER (age, medical condition) and number of meals (portions) served per day.

(b) Sensitivity of ingredients.

(c) Processing step(s) to reduce, control, or eliminate the HAZARD.

(d) Potential for abuse or recontamination.

b. Principle 2 – Identify CCPs.

(1) CCPs are the few steps in a process that, if not carried out correctly, may allow foodborne illness or injury to occur. These controlling points ensure that FOOD safety is maintained. Remember, the CCP is a point, step, or procedure at which control can be applied and a FOOD safety HAZARD can be prevented, eliminated, or reduced to acceptable levels. The following steps outline the procedures for identification of CCPs:

(a) Observe and chart FOOD preparation flow.

(b) Identify those steps in which contamination occurs or may occur (for example, mixing, slicing, handling, de-boning, or other preparation).

(c) Identify those steps that which allow or may allow growth of microorganisms.

(d) Identify those steps that are "kill" steps or that correct past problems (for example, final cook step for hamburger patties on a grill surface).

(e) Identify any other step in a process that presents or may present a risk of injury or threat to the health of the CONSUMER.

(2) Common examples of processing steps where CCPs are monitored include —

(a) Cooking.
(b) Cooling.
(c) Points of cross contamination.
(d) Reheating.
(e) Hot and cold FOOD holding.
(f) Addition of preservatives/inhibitors, acidification, a_w.

(3) When identifying CCPs, it may be necessary to rely on more than one "layer" of protection. However, it is common to indicate that many points in a process are CRITICAL. If the HAZARD concern is *salmonella* species, then proper cooking WILL kill this organism; thus cooking becomes the CCP and the cooking temperature/time relationship is the CL. This type of risk assessment rational WILL be applied at each step in the FOOD process. CCPs SHOULD be carefully evaluated for the purpose of product safety. A CCP Decision Tree (see fig C-5, located at the end of this appendix) may assist you in differentiating CCPs from CPs.

c. Principle 3 – Establish CCP Limits.

(1) With each CCP there WILL be a measurable standard or criteria to assure proper control of identified HAZARDS. These standards are known as "CLs." CLs may be derived from regulatory standards and guide-

lines, scientific literature, and experimental studies. Examples of current regulatory standards include this bulletin, FDA Food Code, Standards of Identity as listed in CFRs, GRADE A Pasteurized Milk Ordinance, etc.

(2) In a world with real time, we would like to quantify HAZARDS and compare them against standards and criteria. This is especially true in determining the presence and level of pathogens in FOODS. But, the use of microbial testing as a monitoring tool for detecting and measurement may be ineffective due to its time-consuming nature. Because of the time required for microbial testing, other factors that have a direct correlation to the levels of microorganisms are simpler to use to monitor CLs. Examples of these measurable factors include time/temperature, humidity, a_w, acidity (pH), titratable acidity, salt concentration, FAC, and total solid concentration.

(3) An example of establishing CLs is the proper cooking of beef patties on a conveyor belt-type broiler. The objective of this particular process is to eliminate the most heat-resistant vegetative pathogen that is reasonably associated with the product. With conveyor-type cooking, numerous factors affect the final product internal temperature after cooking. These WILL be considered in establishing CLs (see table C-5, located at the end of this appendix).

d. Principles 4 and 5 - Monitoring and Corrective Action.

(1) Once identified and CLs are established, CCPs WILL be monitored. The degree of monitoring and documentation needed is dependent on the type of FOOD ESTABLISHMENT and operation. Large, complex FOOD processors or FOOD ESTABLISHMENTS may need to implement extensive continuous monitoring programs. Smaller FOOD ESTABLISHMENTS, on the other hand, may allow front-line FOOD handlers to perform simple intermittent or non-continuous monitoring programs. FOOD ESTABLISHMENTS have the primary obligation to implement HACCP PLANS and monitoring procedures. The HACCP PLANS SHOULD identify what WILL be monitored, how it WILL be monitored, how often (frequency), and who WILL be performing this function. The MEDICAL COMMANDER'S or designated representative's task is to help, consult, periodically follow up to see that HACCP monitoring is carried out, and to look for evidence that CCPs are under control. **Remember that the simpler the system, the more likely it is to be implemented and followed.**

(2) Observations and measurements of CLs are usually recorded on a form or checklist. No matter what format is used, the primary importance of monitoring is the accuracy and validity of the tests and results. As noted in ¶ *c* (Principle 3) above, the most common measurements include time/temperature, pH, a_w, and total solid concentration. Collected data not only provides immediate information for corrective action, it also determines if—

(a) Identified HAZARDS are real.

(b) The level of monitoring needs adjustment (increase or decrease).

(c) Modification of CCPs or procedures is needed (that is, moved further within the process to reduce duplication of measurements).

(3) There are times where monitoring may indicate that CLs have been exceeded and corrective action is necessary. Corrective action is dependent on the identified HAZARD and the alternatives available to eliminate, reduce, or prevent the HAZARD. Examples of corrective actions include —

(a) Adjusting cooking thermostat setting.

(b) Cooking from a chilled instead of a FROZEN state.

(c) Extending cooking time.

(d) Relocating the product from malfunctioning EQUIPMENT to properly operating EQUIPMENT that is capable of quickly changing product temperatures.

(e) Adding APPROVED ingredients to lower a_w.

(f) Adjusting chemicals to correct concentrations.

(g) Discarding products.

(h) Modifiying the HACCP PLAN to prevent long-term deviations.

e. Principle 6 – System of Effective Documentation.

(1) Recordkeeping is a vital part of HACCP, but the HACCP system SHOULD not be designed to create a document monster. The purpose of effective documentation is to provide evidence of product safety with regards to daily operations and controls, compliance when corrective actions are necessary, and product traceability. Additionally, effective documentation provides valuable information on contributing factors of foodborne illnesses. By properly identifying these contributing factors —

(a) An accurate risk assessment of FOODS and processes can be conducted (Principle 1).

(b) CCPs can be accurately targeted (Principle 2).

(c) CLs can be properly established (Principle 3).

(2) HACCP PLANS SHOULD clearly outline which records WILL relate to the CCPs and which ones SHOULD be available for regulatory review. Examples of the types of HACCP records include —

(a) CCP records.

(b) Records associated with establishing CLs.

(c) Records associated with deviations.

(d) Records of verification.

(3) The HACCP PLAN may be tabulated as shown in figure C-6, located at the end of this appendix.

f. Principle 7 – Verification Inspections.

(1) Verification inspections are the methods, pro-

cedures, and tests used to determine —

(a) If the HACCP system is in compliance with the HACCP PLAN and regulatory requirements, and or

(b) If the HACCP PLAN needs to be modified.

(2) The verification procedures may include —

(a) Establishment of appropriate verification inspection schedules.

(b) Review of the HACCP PLAN.

(c) Review of the CCP records.

(d) Review of deviations and dispositions from CLs and corrective actions.

(e) Visual inspections of operations to observe if CCPs are under control.

(f) Random sample collection and analysis.

(g) Review of CLs to verify that they are adequate to control HAZARDS.

(h) Review of written records of verification inspections that certify compliance with the HACCP PLAN or deviations from the plan and the corrective actions taken.

(i) Validation or revalidation of the HACCP PLAN, including on-site review and verification of flow diagrams and CCPs.

(j) Review of modifications of the HACCP PLAN.

C-6. HACCP Applications in Routine Inspections

a. HACCP is essentially the charting of FOOD flows over time to identify FOOD safety HAZARDS and to see that these HAZARDS are controlled. In the establishment of an internal HACCP system, an operator would physically follow all PHFs through production. During routine inspections, ascertain these flows by asking questions, making observations, and extending yourself in time before and after the actual inspection. FOOD flows and HAZARDS can be discovered and CRITICAL ITEMS can be noted and discussed.

b. The following steps outline the MEDICAL COMMANDER'S or designated representative's procedures for applying HACCP to routine inspections:

(1) Be familiar with and understand the menu or inventory. Look for PHFs and for FOODS that have been associated with outbreaks in the past. Are there items that, in your experience, have hazardous or critical steps? Look for FOODS that may be produced in large quantities or made far in advance of consumption. Complex FOODS requiring a great deal of preparation or handling SHOULD raise a mental flag. Make generalizations about the menu that further guide your investigation. Is this FOOD ESTABLISHMENT primarily cooking or preparing for immediate service? Is this a FOOD flow that requires many steps, several points of handling, cooking and chilling, modified atmosphere packaging, or other potential risks? Are certain ingredients (pasta, rice, or ground beef) common to many menu items?

(2) Discuss the menu or commodity list with the chef, SUPERVISOR, PERSON-IN-CHARGE, or owner and ask plenty of questions. Questions WILL help to clarify any assumptions that you made. Ask about recent changes or additions to the menu or product flow. Try to build an accurate picture of the staff's and management's knowledge of FOOD safety and their attitude toward FOOD preparation/handling and turnover, and gain a greater understanding of the system.

(3) Choose several items that you want to investigate. These SHOULD be FOODS that WILL represent preparation at the FOOD ESTABLISHMENT. Items of choice SHOULD be ones that are good representations of how the FOOD ESTABLISHMENT handles CRITICAL points in FOOD production, such as cooking, cooling, handling, and others. You do not need to follow the preparation of all FOOD items during a routine inspection.

(4) Look at the cooling operation to learn more about FOOD handling and potential HAZARDS. This WILL help to verify the attitudes and knowledge that you assessed earlier. After all, why not begin with the number one factor in foodborne outbreaks, which is the improper cooling of FOODS.

(5) Observe and question EMPLOYEES about the flows you are following. Use a combination of questions and observations to obtain information without actually watching the entire process. Try discovering what happens throughout the process and how people handle FOOD. Listen carefully to the answers. Recognize hidden agendas, emotions, and other considerations that may complicate the risks.

(6) Chart FOOD flows mentally or on paper.

(7) Make sure that you are observing the CRITICAL ITEMS. Typical problems and practices of concern include —

(a) Time and temperature abuse.

(b) Cooking, cooling, reheating, and holding.

(c) Preparation ahead of time.

(d) Cross contamination.

(e) Poor personal hygiene.

(f) Multiple handling and/or preparation steps.

(g) UNAPPROVED source.

(8) Use the information gathered to decide where in the FOOD flow foodborne diseases or HAZARDS are most likely to occur. Which steps absolutely or positively WILL happen correctly to end up with safe FOOD? These points in the process are the CRITICAL ones. What are the CLs of these steps? For example, a PHF may have a cool down CL of no greater than 2 hours from the temperatures of 140 °F – 70 °F and no greater than 4 hours from the temperatures of 70 °F – 40 °F. If conditions during a CCP are outside of the CLs, and no action has been taken, then this step is not under control.

(9) Do not overlook non-critical problems, such as sanitation failures and structural deficiencies that contribute to cross contamination.

(10) Communicate findings to someone at the FOOD ESTABLISHMENT who is in a position to effect change. Concentrate on HAZARDS and processes that are of greatest concern. Explore, learn, lead, and teach.

C-7. HACCP Monitoring Forms

a. DA Form 7438-R (Hazard Analysis Critical Control Point Monitoring Report) WILL be used for recording findings noted during routine HACCP inspections. A sample DA Form 7438-R is shown in figures C-7 through C-9, located at the end of this appendix.

(1) The appropriate blocks under the "Criteria for Control," "Monitoring Procedure or What to Look For," and "Actions to Take When Criteria Is Not Met" columns WILL be checked where applicable.

(2) A brief narrative description of verification of CCP monitoring and corrective actions records WILL be noted under the applicable verification blocks on page 2 of the form. This description may include:

(a) Actual CCP monitoring results.

(b) Methods or procedures for monitoring.

(c) Test EQUIPMENT used for monitoring and measurement.

(d) Conformance to or deviation from established corrective actions for exceeded CLs.

(e) Management verification of system documentation.

(3) Actual time and temperature findings conducted during the routine HACCP inspection WILL be recorded on page 3 of the form.

b. The completed original form WILL be provided to the FOOD ESTABLISHMENT'S PERSON-IN-CHARGE. The PERSON-IN-CHARGE WILL maintain the completed form on file at the inspected FOOD ESTABLISHMENT.

c. A copy of the routine HACCP inspection form WILL be maintained on file by the appropriate inspection office.

Section III. OTHER USES OF HACCP

C-8. Epidemiology

HACCP "thinking" can be used when investigating a foodborne outbreak even when there is no HACCP PLAN in place. These applications would come into play primarily during the investigation of factors that may have led to an outbreak. During this phase of the investigation, the HACCP concepts can be used to identify CCP(s) of any operation and to discover where these points may or may not have been under control. The process would be quite similar to the use in routine inspection outlined in ¶ C-6. Information already obtained on symptomology, lab data, and FOOD associations can be used to focus your HAZARD analysis using the following steps:

a. Assess the risks. Use information already obtained and look at menus to determine —

(1) PHFs.

(2) Implicated FOOD items.

(3) FOODS that have an opportunity for time/temperature abuse, that may be extensively handled during preparation or after cooking, or that are not subject to cooking.

(4) Similar FOODS associated with past outbreaks.

b. Determine the CCP(s). Which steps WILL have occurred incorrectly to cause the outbreak or injury? Look for steps in the preparation that would allow —

(1) Microbial growth.

(2) Introduction of physical or chemical HAZARDS.

(3) Cross contamination of cooked FOODS.

(4) PERSON-TO-PERSON transmission/contamination.

c. Determine the CLs of the CCP(s).

d. Establish whether or not the CCP(s) *are* or *were* under control.

e. Discuss corrective actions and controls with the operator.

f. Add this information to the rest of the gathered epidemiological data.

C-9. Risk Assessment Evaluation

As technology develops, inspection agencies are finding new ways to rapidly collect, analyze, and extrapolate data collected from foodborne diseases. This in turn allows evaluation of the vehicles and systems actually associated in food-borne outbreaks thus redefining the HAZARDS. This evaluation also demonstrates that not all HAZARDS are homogenous across the country. Each geographical area has its unique demographics, environmental conditions, and methodological systems in disease reporting.

C-10. Plan Review

Use of HACCP concepts begins with the initial involvement of an inspection agency in the facility plan review. HACCP-based plan reviews allow the inspection agency to identify HAZARDS and ensure CPs are in place. The review process incorporates menu reviews, product flowcharting, FOODS volume, EQUIPMENT design and location, operation schedules, and personnel support.

Section IV. COMMUNICATION - A KEY TO HACCP SUCCESS

C-11. Effective Communication

The foundation of HACCP is one of being inquisitive in order to gain greater knowledge of factors that contribute to and control foodborne illnesses and injuries. Effective communication skills WILL —

a. Allow inspection personnel to obtain missing elements associated with FOOD handling/processing.

b. Provide a greater focus on the risks and control of the risk.

C-12. Suggested Questions

a. The questions listed in ¶ b below SHOULD be kept in mind when looking into the safety of FOOD preparation procedures. These questions are presented to spark ideas. Specific questions depend on the FOOD, process, purpose of the visit, and personal style. When asking questions, remember to think about how you need to phrase the question. Ask questions in ways that let people answer in their own words. Ask questions that let them tell a story. For example, instead of asking, "Do you cook the chicken to 165 °F?", rephrase to, "Tell me how you make your stuffed chicken. Just start from the beginning and describe the process to me."

b. A list such as the one below is not intended to substitute for a routine inspection, but rather to help focus on CRITICAL subject areas.

(1) *Sources.*

(a) Where are FOODS obtained from, and how much is ordered versus the inventory on hand? How many days inventory is on hand? How often is FOOD delivered?

(b) Are any FOODS prepared at another location?

(c) Are shellfish tags present?

(2) *Temperatures and time.*

(a) How do you tell when FOODS are done cooking?

(b) What are the final cooking temperatures for the following FOODS, and how do you determine the temperature?

1. Pork.
2. POULTRY.
3. Beef.
4. Rare roast beef.
5. Items containing ground beef.
6. Other FOODS.

(c) Are raw eggs used in any recipe?

(d) Which FOOD is the most difficult to cool down? How long does it take to cool? How are the PHFs cooled?

(e) How long does it take to cool FOODS that are placed in the walk-in refrigerator or other refrigerators?

(f) What are the hot holding temperatures, and how are they measured or determined?

(g) What are the refrigeration temperatures, and how are they checked?

(h) Are any FOODS cooked 12 or more hours ahead of service (PRE-PRE-PREPARED FOODS)? If yes, describe the procedure.

(i) Are any FOODS prepared more than 24 hours ahead of service? If yes, describe the procedures.

(j) Does this FOOD ESTABLISHMENT cook soups, stews, beans, or other FOODS traditionally cooked in volume? If yes, describe the process.

(k) Are LEFTOVERS ever re-used? If yes, describe the use and cooling/reheating procedures.

(l) How do the EMPLOYEES know how long a FOOD has been around?

(m) How are FOODS thawed? Are there back-up procedures for rapid THAWING?

(3) *Personal hygiene.*

(a) How often do EMPLOYEES wash their hands? Describe the procedure.

(b) What happens when an EMPLOYEE arrives at work sick? Who WILL perform the individual's job? Who determines if a sick EMPLOYEE can return to work either limited duty or nonFOOD contact?

(c) What are the policies on illnesses, cuts, and burns?

(d) Is there an EMPLOYEE FOOD SAFETY TRAINING program? Please describe.

(e) What FOOD items on the menu are likely to be extensively handled by EMPLOYEES?

(4) *Sanitizing/Cross contamination.*

(a) Where, when, and how are the following items cleaned and sanitized?

1. Slicer.
2. UTENSILS.
3. Cutting boards.
4. Pots and pans.
5. Customer contact items.
6. Work surfaces and preparation sinks.

(b) How are sanitizing solutions prepared and tested?

(c) Where and when are raw meats cut or handled? Are other READY-TO-EAT FOODS cut or handled on the same surfaces or by the same people?

(5) *Dishwasher.*

(a) What type of cleaning procedure is used (manual or mechanical)? What method of SANITIZATION is used (heat or chemical)?

(b) What are the temperatures at each step, and how are they determined?

(c) What is the dishwasher used for?

(6) *General.*

(a) How and where are chemicals labeled and stored?

(b) Are any new, rare, or unusual cooking/processing techniques used (such as sous vide, cook chill, ethnic specialty, or others)?

(c) Does the FOOD ESTABLISHMENT do any catering? If yes, describe the procedures.

(d) Is raw seafood served? Are other raw FOODS of animal origin served? If sushi is served, how is the FISH FROZEN? Describe the procedures for any of these items.

(e) Are wild mushrooms served? What is the source of the mushrooms?

(f) Are mono-sodium glutamate, sulfites, nitrates, or nitrites added to the FOOD? If yes, describe how.

(g) Are any pesticides or other insect or rodent controls used by the operator? Are the chemicals APPROVED for this use? Describe their use.

(h) Who performs pest control? How often do they visit the FOOD ESTABLISHMENT, and which chemicals do they apply? Do they leave any record of what was used and where it was applied? Are pesticides applied during operation? If so, how?

MIXING

Figure C-1. Process Step

COOLING
- PANS NOT SANITIZED
- STIRRED WITH HANDS
- 170 °F TO 60 °F IN 17 HRS
- METAL PANS USED
- CONTAINER WAS COVERED
- PLACE IN WALK-IN AT 9 AM
- WALK-IN 44 °F

Figure C-2. Step Process Information

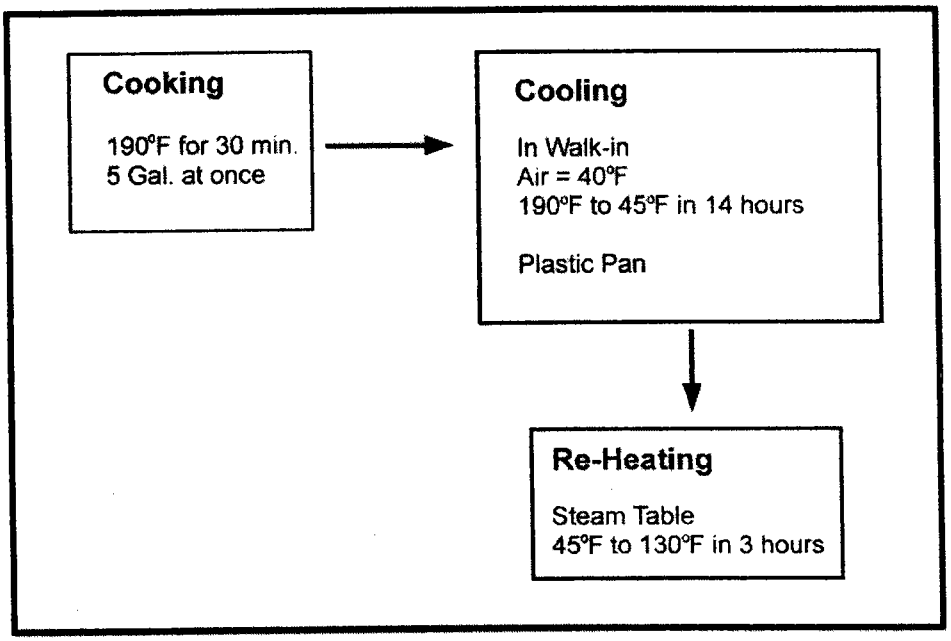

Figure C-3. Connecting Operations.

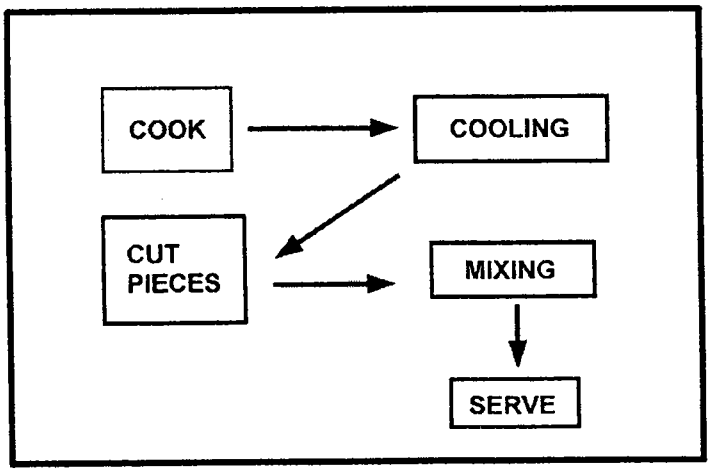

Figure C-4. Loops or Side Operations.

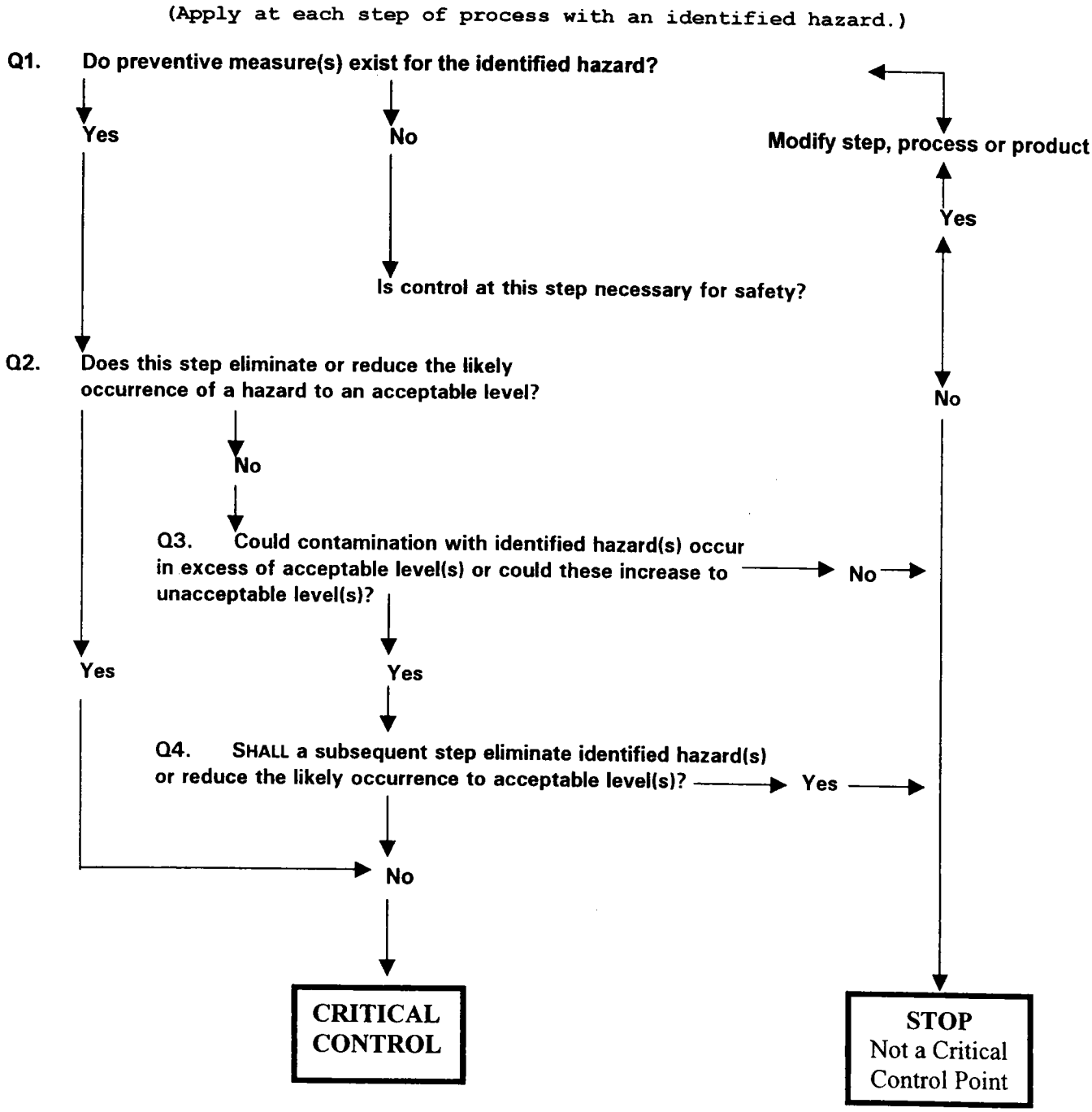

Figure C-5. CCP Decision Tree.

Process Step	CCP	Chemical Physical Biological Hazards	Critical Limit	Monitoring Procedures Frequency Person(s) Responsible	Corrective Action(s) Person(s) Responsible	HACCP Records	Verification Procedures/ Person(s) Responsible

Figure C-6. Tabulation for an HACCP Plan.

HAZARD ANALYSIS CRITICAL CONTROL POINT (CCP) MONITORING REPORT

For use of this form, see TB MED 530; the proponent agency is OTSG.

1. ESTABLISHMENT NAME

Patient Tray Service, Nutrition Care

2. ESTABLISHMENT ADDRESS

Bldg. 15, FT Hope Community Hospital, FT Hope, LA

3. FOOD	4. HAZARD
Meatloaf	Bacteria (e coli 0151:147) C. perfringins

PROCESS (STEPS) CIRCLE CCPs	CRITERIA FOR CONTROL	MONITORING PROCEDURE OR WHAT TO LOOK FOR	ACTIONS TO BE TAKEN WHEN CRITERIA ARE NOT MET
5. RECEIVING/ STORING	a. ☒ Approved source (inspected) ☐ Shellfish tag ☒ Raw/Cooked/Separated in storage ☒ Refrigerate at ≤40°F ☒ Free of deterioration or spoilage	b. ☐ Shellfish tags available ☐ Shellfish tags complete ☒ Measure food temperature ☒ No raw foods stored above cooked or ready-to-eat foods ☒ Organoleptic testing	c. ☐ Discard food ☒ Return food to vendor ☒ Separate raw and cooked food ☒ Discard cooked food contaminated by raw food Food Temperature: ☒ More than 40°F for more than 4 hours, discard food
6. THAWING	a. ☒ Under refrigeration ☐ Under running water <70°F; product ≤40°F or >40°F for less than 4 hours ☐ Microwave ☐ Part of cook process	b. ☐ Observe method ☒ Measure food temperature	c. ☐ Running water >70°F, use alternative thawing method ☒ Food temperature >40°F for more than 4 hours, discard food
7. PROCESSING PRIOR TO COOKING	a. ☒ Food ≤40°F or no more than 4 hours or less at >40°F	b. ☒ Observe quantity of food at room temperature ☒ Observe time food held at room temperature	c. ☒ Food temperature >40°F for more than 4 hours, discard food (time includes thawing time if food temperature was >40°F)
8. COOKING	a. ☒ Temperature to kill pathogens: Food temperature at thickest part more than or equal to 155 °F	b. ☒ Measure food temperature at thickest part	c. ☒ Continue cooking until food temperature at thickest part is more than or equal to 165 °F
9. HOT HOLDING	a. ☒ Food temperature at thickest part more than or equal to 140 °F	b. ☒ Measure food temperature at thickest part every 2 hour(s)	c. Food temperatures: ☒ <140°F for more than 4 hours, discard food ☒ <140°F for less than 4 hours, rapidly reheat to 165°F and hold at 140°F
10. COOLING	a. 140°F to 70°F in 2 hours, 70°F to 40°F in 4 additional hours by the following techniques (check all that apply): ☒ Product depth ≤ 2 inches ☒ Ice water bath and stirring ☒ Solid pieces should be ≤ 6 lbs ☒ Not covered until cold ☐ Other	b. Measure food temperature during cooling every 30 minute(s) ☒ Food depth ☐ Food iced ☒ Food stirred ☒ Food size ☐ Food placed in rapid chill refrigeration unit ☒ Food uncovered	c. Food temperatures: ☒ 140°F to 70°F for more than 2 hours, but less than 4 hours; rapidly (<2 hours) reheat to 165°F, serve hot ☒ 140°F to 70°F for more than 4 hours, discard food ☒ 70°F to 40°F for more than 4 hours, discard food

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Figure C-7. Hazard Analysis Critical Control Point Monitoring Report (Sample).

PROCESS (STEPS) CIRCLE CCPs	CRITERIA FOR CONTROL	MONITORING PROCEDURE OR WHAT TO LOOK FOR	ACTIONS TO BE TAKEN WHEN CRITERIA ARE NOT MET
11. PROCESSING SLICING DEBONING MIXING DICING ASSEMBLING SERVING	a. Prevent contamination by: ☒ Cold PHF at temperature ≤40°F ☒ Hot PHF at temperature ≥140°F ☒ Equipment and utensils clean and sanitized	b. Observe method: ☒ Wash and sanitize equipment and utensils ☐ Use prechilled ingredients for cold foods ☒ Minimize quantity of food at room temperature ☒ Measure food temperature	c. ☒ Hot PHF less than 140°F for less than 4 hours, rapidly reheat to 165°F and hold at 140°F If yes to the following, discard food: ☒ Cold PHF >40°F for more than 4 hours ☒ Hot PHF <140°F for more than 4 hours ☒ Raw or ready-to-eat food contaminated by other food, equipment, or utensils
12. REHEATING	a. Temperature to kill pathogens: ☒ Food temperature at thickest part ≥165°F ☐ Other _____ °F	b. ☒ Measure food temperature at thickest part	c. ☒ Continue cooking until food temperature at thickest part is ≥165°F
13. HOLDING FOOD, HOT/COLD TRANSPORTING FOOD	a. Food temperatures: ☒ ≥140°F at thickest part ☐ ≤40°F at thickest part	b. ☒ Measure food temperature every 2 hours during holding/transporting	c. ☒ >40°F or <140°F for more than 4 hours, discard ☒ <140°F for less than 4 hours, rapidly reheat to 165°F and hold at 140°F ☐ >40°F for less than 4 hours, refrigerate to <40°F; serve immediately
14. FOOD HANDLER HEALTH/HYGIENE	a. Prevent contamination by: ☒ Ill employee not working ☒ Proper handwashing ☒ No bare hand contact with ready-to-eat foods	b. Observe method: ☒ Employee's health ☐ Use of gloves, utensils, deli tissues ☒ Handwashing technique	c. If yes to the following, discard food: ☒ Ill employee working with food ☒ Direct hand contact with ready-to-eat PHFs

15. VERIFICATION OF CCP MONITORING AS DESCRIBED IN PLAN: ☒ YES ☐ NO

REMARKS
Temperatures recorded on receiving documents and cook's worksheet.

16. VERIFICATION OF CORRECTIVE ACTION RECORDS SHOWS COMPLIANCE: ☒ YES ☐ NO

REMARKS
Reviewed daily by NCOIC.

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Figure C-8. Hazard Analysis Critical Control Point Monitoring Report (Sample)--Continued.

17. EQUIPMENT READINGS (Grill surfaces, oven settings, thermometers, pH meters)

EQUIPMENT	DATE CALIBRATED *(YYYYMMDD)*	ACTUAL READING VS. CALIBRATED READING
Oven	20010815	175 degrees F/ 180 degrees F

18a. FOOD	18b. CONTAINER SIZE
Meatloaf	Large Loaf Pan

18c. LOCATION/STATION
Patient Tray Service

18d. TIME - TEMPERATURE SURVEY DATA

TIME	TEMPERATURE	TIME	TEMPERATURE
0800	40 degrees F		
0900	48 degrees F		
1000	115 degrees F		
1100	165 degrees F		
1130	150 degrees F		
1200	145 degrees F		
1300	145 degrees F		
1300	140 degrees F		

19a. INSPECTOR'S SIGNATURE	19b. DATE *(YYYYMMDD)*	19c. TIME
	20010814	1330 hrs

19d. INSPECTOR'S UNIT NAME	19e. TELEPHONE NUMBER
SGT Brown	DSN 584-4937

20a. ESTABLISHMENT REPRESENTATIVE'S NAME	20b. TITLE
Mr. T. Roth	Environmental Health Supervisor

20c. ESTABLISHMENT REPRESENTATIVE'S SIGNATURE	20d. DATE *(YYYYMMDD)*
	20010814

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Figure C-9. Hazard Analysis Critical Control Point Monitoring Report (Sample)--Continued.

Table C-1. Hazardous Microorganisms and Parasites Grouped on the Basis of Risk Severity

I. Severe Hazards
- *Clostridium botulinum* types A, B, E, and F
- *Shigella dysenteriae*
- *S. typhi; paratyphi* A, B
- Hepatitis A and E
- *Brucella abortis; B. suis*
- *Vibrio cholerae 01*
- *Vibrio vulnificus*
- *Taenia solium*
- *Trichinella spiralis*

II. Moderate Hazards: Potentially Extensive Spread[1]
- *Listeria monocytogenes*
- *Salmonella ssp.*
- *Shigella ssp.*
- Enterovirulent *Escherichia coli* (EEC)
- *Streptococcus pyogenes*
- Rotavirus
- Norwalk virus group
- *Entamoeba histolytica*
- *Diphyllobothrium latum*
- *Ascaris lumbricoides*
- *Crytosporidium parvum*

III. Moderate Hazards: Limited Spread
- *Bacillus cereus*
- *Camplyobacter jejuni*
- *Clostridium perfringens*
- *Staphylococcus aureus*
- *Vibrio cholerae*, non-01
- *Vibrio parahaemolyticus*
- *Yersinia enterocolitica*
- *Giardia lamblia*
- *Taenia saginata*

[1]Although classified as moderate hazards, complications and sequelae may be severe in certain susceptible populations. Source: Reprinted from Merle D. Pierson and Donald A. Corlett, Jr., *HACCP Principles and Applications*, Aspen Publishers, 1992, with permission from Donald A. Corlett, Jr.

Table C-2. Main Materials of Concern as Physical Hazards and Common Sources

Material	Injury Potential	Sources
Glass	Cuts, bleeding; may require surgery to find or remove	Bottles, jars, light fixtures, utensils, gauge covers
Wood	Cuts, infection, choking; may require surgery to remove	Fields, pallets, boxes, buildings
Stones	Choking, broken teeth	Fields, buildings
Metals	Cuts, infection; may require surgery to remove	Machinery, fields, wire, employees
Insects and other filth	Illness, trauma, choking	Fields, plant post-process entry

Insulation	Choking; long-term if asbestos	Building material
Bone	Choking; trauma	Fields, improper plant processing
Plastic	Choking, cuts, infection; may require surgery to remove	Fields, plant packaging materials, pallets, employees
Personal effects	Choking, cuts, broken teeth; may require surgery to remove	Employees

Source: Reprinted from Merle D. Pierson and Donald A. Corlett, Jr., *HACCP Principles and Applications*, Aspen Publishers, 1992, with permission from Donald A. Corlett, Jr.

Table C-3. Types of Chemical Hazards

I. Naturally occurring chemicals
- Mycotoxins (e.g. aflatoxin)
- Scombrotoxin (histamine)
- Ciguatoxin
- Mushroom Toxins
- Shellfish toxins
  - Paralytic shellfish poisoning (PSP)
  - Diarrheic shellfish poisoning (DSP)
  - Neurotoxic shellfish poisoning (NSP)
  - Amnesic shellfish poisoning (ASP)
- Pyrrolizidine alkaloids
- Phytohemagglutinin

II. Added chemicals
- Agricultural chemicals
  - Pesticides, fungicides, fertilizers, insecticides, antibiotic and growth hormones
- Prohibited substances (21 CFR 189)
  - Direct
  - Indirect
- Toxin elements and compounds
  - Lead, zinc, arsenic, mercury, cyanide, and polychlorinated biphenyls (PCBs)
- Food additives
  - Direct - allowable limits under GAPS
    - Preservatives (nitrite and sulfating agents)
    - Flavor enhances (monosodium glutamate)
    - Nutritional additives (niacin)
    - Color additives
  - Secondary direct and indirect
    - Plant chemicals (e.g., lubricants, cleaners, sanitizer, cleaning compounds, coating and paint)
- Chemical intentionally added (sabotage)

Source: Reprinted from Merle D. Pierson and Donald A. Corlett, Jr., *HACCP Principles and Applications*, Aspen Publishers, 1992, with permission from Donald A. Corlett, Jr.

Table C-4. Sandwich Shop Risk Assessment

Step	Possible Hazards
Receipt Delivery	Biological: Nonsporulating bacteria (*E. coli*, *L. monocytogenes*, *Salmonella*). Sporulating bacteria (*C. perfrigens*). Physical (metal, glass, and wood particles). Chemical (unauthorized antibiotics).
Storage	Biological - Contamination and growth during storage
Cutting/Slicing	Biological - Contamination and growth during processing. Physical - metal/plastic particles due to poor equipment maintenance. Chemical - Exposure and contamination due to poor CGMPs.
Sandwich Prep/Packing	Biological - Contamination and growth during preparation and packaging. Physical - Filth (wood/dust/dirt/metal/plastic particles due to poor CGMPs. Chemical - Exposure and contamination due to poor CGMPs. Unapproved packaging material used that allows migration of deleterious materials.
Display	Biological - Contamination and growth during storage.

CGMP = Current good manufacturing practices

Table C-5. Alternative Cooking Time and Temperature Combinations for Ground Beef

Temperature °F (°C)	Time
145 (63)	3 minutes
150 (66)	1 minute
155 (68)	15 seconds

GLOSSARY

Section I.

ABBREVIATIONS

A2LA
American Association for Laboratory Accreditation

AAFES
Army and Air Force Exchange Service

AFPMB
Armed Forces Pest Management Board

ANSI
American National Standards Institute

ASSE
American Society of Sanitary Engineering

a_w
water activity

BISSC
Baking Industry Sanitation Standards Committee

CCP
critical control point

CDC
Centers for Disease Control and Prevention

CFR
Code of Federal Regulations

CIP
clean-in-place

CL
critical limit

cm
centimeter(s)

CONUS
Continental United States

COR
contract officer representative

°C
degrees Celsius

°F
degrees Fahrenheit

DANTES
Defense Activity for Nontraditional Education Support

DeCA
Defense Commissary Agency

EPA
U.S. Environmental Protection Agency

ETL
Engineering Testing Laboratory

FAC
free available chlorine

FCC
family childcare

FDA
U.S. Food and Drug Administration

FM
Field Manual

fpm
feet per minute

FSO
food service officer

GRAS
generally recognized as safe

HACCP
Hazard Analysis Critical Control Point

HMIS
hazardous material information sheet

HAZCOM
hazard communication

IFA
installation food advisor

IFC
insulated food container

in
inch (s)

IPM
integrated pest management

kg
kilogram(s)

KP
kitchen police

L
liter

lbs
pounds

m
meter(s)

MACOM
major Army command

mg/L
milligrams per liter

MIL HDBK
Military Handbook

MIL STD
Military Standard

mm
millimeter(s)

MSDS
Material Safety Data Sheet

NAF
nonappropriated funds

NAMA
National Automatic Merchandising Association

NASA
National Aeronautics and Space Administration

NFPA
National Fire Protection Association

NSF
National Sanitation Foundation

NSN
national stock number

OCONUS
outside Continental United States

OTSG
Office of the Surgeon General

pH
hydrogen-ion concentration

PHF
potentially hazardous food

ppm
parts per million

SOP
standing operating procedure

TB MED
Technical Bulletin, Medical

TG
technical guide

TIM
technical information memorandum

TM
Technical Manual

TMD
temperature measuring device

TSG
The Surgeon General

U L
Underwriters Laboratories

USACE
U.S. Army Corps of Engineers

USACHPPM
U.S. Army Center for Health Promotion and Preventive Medicine

USC
United States Code

USDA
U.S. Department of Agriculture

VETCOM
U.S. Army Veterinary Command

Section II.

TERMS

The following terms apply in the interpretation and application of this bulletin.

Additive

a. FOOD ADDITIVE has the meaning stated in the Federal Food, Drug, and Cosmetic Act, § 201(s) and 21 CFR 170.

b. COLOR ADDITIVE has the meaning stated in the Federal Food, Drug, and Cosmetic Act, § 201(t) and 21 CFR 70.

c. BOILER WATER ADDITIVE is an ADDITIVE added to boiler feed water. This ADDITIVE is generally used in central boiler plants to control corrosion, pH, and other physical and chemical characteristics.

Adulterated
ADULTERATED has the meaning stated in the Federal Food, Drug, and Cosmetic Act, § 402.

Advance preparation
See Pre-prepared.

Approved
Acceptable to the REGULATORY AUTHORITY or MEDICAL AUTHORITY based on a determination of conformity with principles, practices, and generally recognized standards that protect public health.

Beverage
A liquid for drinking including water.

Bottled drinking water
Water that is SEALED in bottles, packages, or other containers and offered for sale for human consumption, including bottled mineral water.

Certification number
A unique combination of letters and numbers assigned by a SHELLFISH CONTROL AUTHORITY to a MOLLUSCAN SHELLFISH dealer according to the provisions of the National Shellfish Sanitation Program.

Clean-in-place (also written as CIP)

a. The circulation or flowing by mechanical means through a piping system of a detergent solution, water rinse, and SANITIZING solution onto or over EQUIPMENT surfaces that require cleaning in-place, such as the method used, in part,

to clean and SANITIZE a frozen dessert machine.

b. CIP does not include the cleaning of EQUIPMENT, such as band saws, slicers, or mixers, that are subjected to in-place manual cleaning without the use of a CIP system.

Code of Federal Regulations

a. The compilation of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal government that:

(1) Is published annually by the U.S. Government Printing Office; and

(2) Contains FDA rules in 21 CFR, USDA rules in 7 CFR and 9 CFR, EPA rules in 40 CFR, and Wildlife and Fisheries rules in 50 CFR.

b. Citations in this bulletin to the CFR refer sequentially to the Title, Part, and Section numbers, such as 21 CFR 178.1010 refers to Title 21, Part 178, Section 1010.

Comminuted

Reduced in size by methods including chopping, flaking, grinding, or mincing. This includes—

a. FISH or MEAT products that are reduced in size and restructured or reformulated, such as gefilte FISH, gyros, ground beef, and sausage.

b. A mixture of two or more types of MEAT that have been reduced in size and combined, such as sausages made from two or more MEATS.

Confirmed disease outbreak

A FOODBORNE DISEASE OUTBREAK in which laboratory analysis of appropriate specimens identifies a causative agent and epidemiological analysis implicates the FOOD as the source of the illness.

Consumer

A PERSON who is a member of the public, takes possession of FOOD, is not functioning in the capacity of an operator of a FOOD ESTABLISHMENT or FOOD PROCESSING PLANT, and does not offer the FOOD for resale. FOOD SERVICE PERSONNEL who consume FOOD during or outside their normal work schedule at the FOOD ESTABLISHMENT are also considered CONSUMERS for the purpose of investigation of FOODBORNE DISEASE OUTBREAKS.

Corrosion-resistant material

A material that maintains acceptable surface cleanability characteristics under prolonged influence of the FOOD to be contacted, the normal use of cleaning compounds and SANITIZING solutions, and other conditions of the use environment.

Critical control point (also written as CCP)

A point or procedure in a specific FOOD system where loss of control may result in an unacceptable health risk.

Critical item

a. A provision of this bulletin that, if in noncompliance, is more likely than other violations to contribute to FOOD contamination, illness, or an environmental health HAZARD.

b. Any item in this bulletin that is denoted with an asterisk * is a CRITICAL ITEM.

Critical limit (also written as CL)

The maximum or minimum value to which a physical, biological, or chemical parameter WILL be controlled at a CCP to minimize the risk that the identified FOOD safety HAZARD may occur. Examples of measurable CL(s) include temperature and time, pH, and a_w.

Drinking water

a. Water that meets 40 CFR 141 and TB MEDs 576 and 577 for garrison and field DRINKING WATER.

b. Traditionally known as "POTABLE WATER."

c. Includes the term "water" except where the term used connotes that the water is non-potable, such as "boiler water," "mop water," "rainwater," "wastewater," and "nondrinking" water.

Dry storage area

A room or area designated for the storage of PACKAGED or containerized bulk FOOD that is not POTENTIALLY HAZARDOUS and dry goods, such as SINGLE-SERVICE items.

Easily cleanable

a. A characteristic of a surface that—

(1) Allows effective removal of soil by normal cleaning methods.

(2) Is dependent on the material, design, construction, and installation of the surface.

(3) Varies with the likelihood of the surface's role in introducing pathogenic or toxigenic agents or other contaminants into FOOD based on the surface's APPROVED placement, purpose, and use.

b. Includes a tiered application of the criteria that qualifies the surface as EASILY CLEANABLE as specified under ¶ *a* of this definition to different situations in which varying degrees of cleanability are required, such as—

(1) The appropriateness of stainless steel for a FOOD preparation surface as opposed to the lack of need for stainless steel to be used for floors or for tables used for CONSUMER dining; or

(2) The need for a different degree of cleanability for a utilitarian attachment or accessory in the kitchen as opposed to a decorative attachment or accessory in the CONSUMER dining area.

Easily movable

a. EQUIPMENT weighing 30 pounds (lbs) (14 kg) or less; mounted on casters, gliders, or rollers; or provided with a mechanical means requiring no more than 30 lbs (14 kg) of force to safely tilt a unit of EQUIPMENT for cleaning; and

b. EQUIPMENT that has no utility connection, a utility connection that disconnects quickly, or a flexible utility connection line of sufficient length to allow the EQUIPMENT to be moved for cleaning of the EQUIPMENT and adjacent area.

Employee

The PERMIT HOLDER, PERSON-IN-CHARGE, PERSON having supervisory or management duties, PERSON on the payroll, family member, volunteer, PERSON performing work under contractual agreement, prisoners of war, refugee, or other PERSON working in a FOOD ESTABLISHMENT.

a. Military personnel detailed to perform other than primary FOOD preparation duties are not considered EMPLOYEES provided they are under the direct supervision of a FOOD SERVICE SUPERVISOR or PERSON-IN-CHARGE or a trained military KP supervisor.

b. Military personnel detailed to perform traditional KP duty may perform initial FOOD preparation (such as vegetable washing and pealing; cleaning and SANITATION of FOOD EQUIPMENT and UTENSILS) and other custodial duties with the FOOD ESTABLISHMENT provided they are directly supervised by a FOOD SERVICE SUPERVISOR or PERSON-IN-CHARGE or a trained military KP supervisor.

Equipment

a. An article (such as a freezer, grinder, hood, ice maker, MEAT block, mixer, oven, reach-in refrigerator, scale, sink, slicer, stove, table, TMD for ambient air, VENDING MACHINE, or WAREWASHING machine) that is used in the operation of a FOOD ESTABLISHMENT.

b. Does not include items (such as hand trucks, forklifts, dollies, pallets, racks, and skids) used for handling or storing large quantities of PACKAGED FOODS that are received from a supplier in a cased or over-wrapped lot.

Field food service

The table of organization and EQUIPMENT FOOD service operations, including EQUIPMENT used in support of tactical operations or training, in other than garrison-type FOOD service establishments or structures.

Fish

a. Fresh or saltwater fin FISH, crustaceans, and other forms of aquatic life (including alligator, frog, aquatic turtle, jellyfish, sea cucumber, and sea urchin and the roe of such animals) other than birds or mammals, and all mollusks, if such animal life is intended for human consumption.

b. Includes an edible human FOOD product derived in whole or in part from FISH, including FISH that have been processed in any manner.

Food

A raw, cooked, or processed edible substance, ice, BEVERAGE, or ingredient used or intended for use or for sale in whole or in part for human consumption, or chewing gum.

Food-borne disease outbreak

a. An incident, except as specified under ¶ *b* of this definition, in which:

(1) Two or more PERSONS experience a similar illness after ingestion of a common FOOD, and epidemiological analysis implicates the FOOD as the source of the illness.

(2) Laboratory analysis of appropriate specimens identifies a causative agent, and epidemiological analysis implicates the FOOD as the source of the illness.

b. Includes a single case of illness, such as one PERSON ill from botulism or chemical poisoning.

Food-contact surface

a. A surface of EQUIPMENT or a UTENSIL with which FOOD normally comes into contact; or

b. A surface of EQUIPMENT or a UTENSIL from which FOOD may drain, drip, or splash—

(1) Into a FOOD, or

(2) Onto a surface normally in contact with FOOD.

Food employee

An individual working with unPACKAGED FOOD, FOOD EQUIPMENT or UTENSILS, or FOOD-CONTACT SURFACES.

Food establishment

a. An operation that stores, prepares, packages, serves, vends, or otherwise provides FOOD for human consumption—

(1) Such as a restaurant; satellite or catered feeding location; catering operation, if the operation provides FOOD directly to a CONSUMER or to a conveyance used to transport people; market; vending location; conveyance used to transport people; institution; or FOOD bank; and

(2) That relinquishes possession of FOOD to a CONSUMER directly, or indirectly, through a delivery service, such as home delivery of grocery orders or restaurant takeout orders; or a delivery service that is provided by common carriers.

b. Includes—

(1) An element of the operation, such as a transportation vehicle or a central preparation facility, that supplies a vending location or satellite feeding location, *unless the vending or feeding location is PERMITTED by the MEDICAL COMMANDER or designated representative or THE VETCOM*; and

(2) An operation that is conducted in a mobile, stationary, TEMPORARY, or permanent FOOD ESTABLISHMENT or location; where consumption is on or off the PREMISES; and regardless of whether there is a charge for the FOOD.

c. Does not include—

(1) *A FOOD PROCESSING PLANT*;

(2) *A kitchen in a private home if only FOOD that is not POTENTIALLY HAZARDOUS is prepared for sale or service at a function, such as a religious or charitable organization's bake sale, if allowed by the REGULATORY AUTHORITY and if the CONSUMER is informed by a clearly visible placard at the sales or service location that the FOOD is prepared in a kitchen that is not subject to regulation and inspection by the REGULATORY AUTHORITY*;

(3) *An area where FOOD that is prepared as specified in ¶ (4) of this definition is sold or offered for human consumption*;

(4) *A kitchen in a private home, such as a small family day-care provider; or a bed-and-breakfast operation that prepares and offers FOOD to guests if the home is owner occupied; the number of available guest bedrooms does not exceed six; breakfast is the only meal offered; the number of guests served does not exceed 18; and the CONSUMER is informed by statements contained in published advertisements, mailed brochures, and placards posted at the registration area that the FOOD is prepared in a kitchen that is not regulated and inspected by the REGULATORY AUTHORITY; or*

(5) *A private home, occupant kitchens in bachelor and guest housing, and group residence, such as barracks, where the occupant(s) provide the FOOD and are responsible for its preparation. However, club, annexes, snack bars, vending areas, and other similar operations in these facilities are FOOD ESTABLISHMENTS.*

Food processing plant

a. A commercial operation that manufactures, packages, labels, or stores FOOD for human consumption and does not provide FOOD directly to a CONSUMER.

b. An outlet of a FOOD PROCESSING PLANT selling directly to consumers is defined as a FOOD ESTABLISHMENT.

c. Does not include facilities defined as a FOOD ESTABLISHMENT.

Food service person-in-charge or supervisor

The PERSON-IN-CHARGE or responsible for the supervision of EMPLOYEES in a FOOD ESTABLISHMENT. This term includes military and civilian shift leaders, night bakers or cooks, or anyone responsible for the direct supervision of EMPLOYEE(S).

Food service personnel

See employee.

Food zone

a. Surfaces that normally come in contact with FOOD, and

b. Those surfaces from which FOOD or moisture may drain, drip, or splash back onto surfaces that normally come in contact with FOOD. See also SPLASH ZONE.

Formal food safety/sanitation training

Training that is based on and emphasizes control of the factors and practices that contribute to food-borne illness. The curriculum WILL be recognized by this bulletin and the MEDICAL COMMANDER or designated representative. It may include, for example, community college courses, training courses offered by the Education Foundation of the National Restaurant Association, or FOOD-handler training and manager certification/recertification classes offered by the local command. It does not include activities such as on-the-job training or the viewing of FOOD-safety videos without interactive training. Years of experience may not be substituted for formal training.

Frozen

A FOOD product where 99.9 percent of available water is FROZEN, usually at 0.4 °F (–18 °C). The freezing point of FOOD is the temperature at which minute crystals of ice exist in equilibrium with the surrounding water. The temperature to achieve the freezing point differs between FOODS due to the physical and chemical structure of the FOOD.

Game animal

a. An animal, the products of which are FOOD, that is not classified as cattle, sheep, swine, goat, horse, mule, or other equine in 9 CFR 301, Subchapter A; as POULTRY in 9 CFR 381, Subchapter C; or as FISH as defined in this section.

b. Includes mammals, such as reindeer, elk, deer, antelope, water buffalo, bison, rabbit, squirrel, opossum, raccoon, nutria, or muskrat; and nonaquatic reptiles, such as land snakes.

c. Does not include RATITES, such as ostrich, emu, and rhea.

Grade A standards

The requirements of the United States Public Health Service/FDA "Grade A Pasteurized Milk Ordinance" and "Grade A Condensed and Dry Milk Ordinance" with which certain fluid and dry milk and milk products comply.

General use pesticide

A pesticide that is not classified by EPA for restricted use as specified in 40 CFR 152.175.

HACCP plan

A written document that delineates the formal procedures for following the HACCP principles developed by The National Advisory Committee on Microbiological Criteria for Foods.

Hazard

A biological, chemical, or physical property that may cause an unacceptable CONSUMER health risk.

Heated food zone

A FOOD-CONTACT SURFACE that maintains a temperature of 180 °F (82 °C) or more during normal use.

Hermetically sealed container

A container that is designed and intended to be secure against the entry of microorganisms and, in the case of low-acid canned FOODS, to maintain the commercial sterility of its contents after processing.

Highly susceptible population

a. A group of PERSONS who are more likely than other populations to experience food-borne disease because they are immunocompromised or older adults and in a facility that provides health care or assisted living services, such as a hospital or nursing home; or infants and preschool age children in a facility that provides custodial care, such as a day care center.

b. Military personnel who are deployed, in a field training status, or similar circumstance that puts the soldier in an environment that would reduce their immune system capability.

c. Pregnant soldiers are a high risk, but they are considered in the group of hospitalized or infirmed because they are isolated in nature and do not constitute a group or population of concern.

Hollowware
Cups, bowls, or vessels (usually of pottery, glass, or metal) that have a significant depth and volume. See also TABLEWARE.

Imminent health hazard
A significant threat or danger to health that is considered to exist when there is evidence sufficient to show that a product, practice, circumstance, or event creates a situation that requires immediate correction or cessation of operation to prevent injury based on—

a. The number of potential injuries.
b. The nature, severity, and duration of the anticipated injury.

Injected
Manipulating a MEAT so that infectious or toxigenic microorganisms may be introduced from its surface to its interior through tenderizing with deep penetration or injecting the MEAT, such as with juices which may be referred to as "injecting," "pinning," or "stitch pumping."

Kitchenware
FOOD preparation and storage UTENSILS.

Law
Applicable military, local, State, and Federal statutes, regulations, and ordinances.

Leftovers
Any unserved FOOD remaining at the end of the meal period for which it is prepared, but has not been placed on a service line or offered for consumption and service (for example, FOOD remaining in a hot/cold storage cabinet awaiting transfer to a service line). LEFTOVERS do not include unused portions remaining on the service line unless the FOOD was held at SAFE TEMPERATURES, protected from contamination by an APPROVED sneeze guard, and served by an EMPLOYEE. FOOD offered for CONSUMER self service, such as a buffet line, and FOOD served to a CONSUMER cannot be reclaimed as LEFTOVERS.

Linens
Fabric items such as cloth hampers, cloth napkins, tablecloths, wiping cloths, and work garments including cloth gloves.

Made-to-order
FOOD prepared for immediate service in response to a CONSUMER'S order. *In mass feeding situations, MADE-TO-ORDER may be batch prepared with restrictive time limitations in this bulletin.*

Meat
The flesh of animals used as FOOD, including the dressed flesh of cattle, swine, sheep, or goats and other edible animals, *except FISH, POULTRY, and wild GAME ANIMALS as specified under ¶ 3-41(1)(c) and (d).*

Medical Commander
The unit surgeon; command chief surgeon, U.S. Army Medical Department Activity, U.S. Army Regional Medical Activity, and U.S. Army Medical Center; and commanders or their representatives responsible for provisions of medical support at the unit, command, or installation who are concerned in consultation with veterinarians, sanitary engineers, environmental science officers, entomologists, and civilian counterparts.

mg/L
Milligrams per liter; the metric equivalent of parts per million (ppm).

Molluscan shellfish
Any edible species of fresh or FROZEN oysters, clams, mussels, and scallops or edible portions thereof, *except when the scallop product consists only of the shucked adductor muscle.*

Packaged
a. Bottled, canned, cartoned, securely bagged, or securely wrapped, whether PACKAGED in a FOOD ESTABLISHMENT or a FOOD PROCESSING PLANT.
b. Does not include a wrapper, carry-out box, or other nondurable container used to containerize FOOD with the purpose of facilitating FOOD protection during service and receipt of the FOOD by the CONSUMER.

Permit
The authorization issued by the installation commander and APPROVED by the MEDICAL COMMANDER or designated representative that authorizes a PERSON to operate a FOOD ESTABLISHMENT.

Permit holder
The entity that—

a. Is legally responsible for the operation of the FOOD ESTABLISHMENT, such as the owner, the owner's agent, or other PERSON; and

b. Possesses a valid PERMIT to operate a FOOD ESTABLISHMENT.

Person
An association, corporation, individual, partnership, other legal entity, government, or governmental subdivision or agency.

Person-in-charge
The individual present at a FOOD ESTABLISHMENT who is responsible for the operation at the time of inspection.

Personal care items

a. Items or substances that may be poisonous, toxic, or a source of contamination and are used to maintain or enhance a PERSON'S health, hygiene, or appearance.

b. Includes items such as medicines; first aid supplies; cosmetics; and toiletries, such as toothpaste and mouthwash.

pH
The symbol for the negative logarithm of the hydrogen-ion concentration, which is a measure of the degree of acidity or alkalinity of a solution. Values between 0 and 7 indicate acidity and values between 7 and 14 indicate alkalinity. The value for pure distilled water is 7, which is considered neutral.

Physical facilities
The structure and interior surfaces of a FOOD ESTABLISHMENT including accessories, such as soap and towel dispensers; and attachments, such as light fixtures and heating or air-conditioning system vents.

Plumbing fixture

a. A receptacle or device that—

(1) Is permanently or temporarily connected to the water distribution system of the PREMISES and demands a supply of water from the system; or

(2) Discharges used water, waste materials, or SEWAGE directly or indirectly to the drainage system of the PREMISES.

b. Includes both permanent and temporary fixtures and hoses and connections used with TEMPORARY and MOBILE FOOD ESTABLISHMENTS and FIELD FOOD SERVICE.

Plumbing system
The water supply and distribution pipes; PLUMBING FIXTURES and traps; soil, waste, and vent pipes; sanitary and storm sewers and building drains, including their respective connections, devices, and appurtenances within the PREMISES; and water-treating EQUIPMENT.

Poisonous or toxic materials
Substances that are not intended for ingestion and are included in four categories—

a. Cleaners and SANITIZERS, which include cleaning and SANITIZING agents and agents such as caustics, acids, drying agents, polishes, and other chemicals.

b. Pesticides, *except SANITIZERS*, that include substances such as insecticides and rodenticides.

c. Substances necessary for the operation and maintenance of the FOOD ESTABLISHMENT, such as nonFOOD grade lubricants and PERSONAL CARE ITEMS, that may be deleterious to health.

d. Substances that are not necessary for the operation and maintenance of the FOOD ESTABLISHMENT and are on the PREMISES for retail sale, such as petroleum products and paints.

Potable water
See DRINKING WATER.

Potentially hazardous food (also written as PHF)

a. A FOOD that is natural or synthetic and that requires temperature control because it is in a form capable of supporting—

(1) The rapid and progressive growth of infectious or toxigenic microorganisms;

(2) The growth and toxin production of *Clostridium botulinum*; or

(3) In raw shell eggs, the growth of *Salmonella enteritidis*.

b. Includes an animal FOOD (a FOOD of animal origin) that is raw or heat-treated; a FOOD of plant origin that is heat-treated or consists of raw seed sprouts; cut melons; and garlic and oil mixtures that are not acidified or otherwise modified at a FOOD PROCESSING PLANT in a way that results in mixtures that do not support growth as specified under ¶ *a* of this definition.

c. Does not include—

(1) An air-cooled, hard-boiled egg with shell intact.

(2) A FOOD with an a_w value of 0.85 or less.

(3) A FOOD with a pH level of 4.6 or below when measured at 75 °F (24 °C).

(4) A FOOD, in an unopened HERMETICALLY SEALED CONTAINER, that is commercially processed to achieve and maintain commercial sterility under conditions of non-refrigerated storage and distribution.

(5) A FOOD for which laboratory evidence from an APPROVED independent testing laboratory demonstrates that the rapid and progressive growth of infectious or toxigenic microorganisms cannot occur (for example, a FOOD that has an a_w and a pH that are above the levels specified in ¶¶ c(2) and (3) above that either contains a preservative, underwent a pasteurization process, or contains another barrier to inhibit the growth of microorganisms or toxin production, or a combination of these barriers).

(6) A FOOD that may contain an infectious or toxigenic microorganism or chemical or physical contaminant at a level sufficient to cause illness, but that does not support the growth of microorganisms as specified under ¶ a of this definition.

Poultry

a. Any domesticated bird (chickens, turkeys, ducks, geese, or guineas), whether alive or dead, as defined in 9 CFR 381.

b. Any migratory waterfowl, game bird, or squab (such as pheasant, partridge, quail, grouse, or guineas), whether alive or dead, as defined in 9 CFR 362.

c. Does not include RATITES.

Premises

a. The PHYSICAL FACILITY, its contents, and the contiguous land or property under the control of the PERMIT HOLDER; or

b. The PHYSICAL FACILITY, its contents, and the land or property not described under ¶ *a* of this definition if its facilities and contents are under the control of the PERMIT HOLDER and may impact FOOD ESTABLISHMENT personnel, facilities, or operations, if a FOOD ESTABLISHMENT is only one component of a larger operation (such as a health care facility, hotel, motel, school, recreational camp, or prison).

Pre-prepared

A FOOD that is prepared (cooked or raw) in advance for future service beyond a specific meal. PRE-PREPARED FOOD cannot be maintained in "hot holding" or as backup to a serving line. These FOODS WILL be immediately cooled after cooking to 70 °F (21 °C) within 2 hours and 70 °F (21 °C) to 40 °F (4.4 °C) or below within 4 additional hours.

Primal cut

A basic major cut into which carcasses and sides of MEAT are separated, such as a beef round, pork loin, lamb flank, or veal breast.

Public water system

As stated in 40 CFR 141, a PUBLIC WATER SYSTEM is a "community" or "noncommunity" water system designed of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. PUBLIC WATER SYSTEMS include—

a. Any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system.

b. Any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

Ratites
Non-flying birds, such as emu, ostrich, or rhea.

Ready-to-eat food
a. FOOD that is in a form that is edible without washing, cooking, or additional preparation by the FOOD ESTABLISHMENT or the CONSUMER and that is reasonably expected to be consumed in that form.
b. Includes—
(1) PHF that is UNPACKAGED and cooked to the temperature and time required for the specific FOOD under ¶¶ 3-42 through 3-45.
(2) Raw, washed, cut fruits and vegetables.
(3) Whole, raw fruits and vegetables that are presented for consumption without the need for further washing, such as at a buffet.
(4) Other FOOD presented for consumption for which further washing or cooking is not required and from which rinds, peels, husks, or shells are removed.

Reduced oxygen packaging
a. The reduction of the amount of oxygen in a package by mechanically evacuating the oxygen; displacing the oxygen with another gas or combination of gases; or otherwise controlling the oxygen content in a package to a level below that normally found in the surrounding atmosphere, which is 21 percent oxygen.
b. Includes methods that may be referred to as altered atmosphere, modified atmosphere, controlled atmosphere, low oxygen, and vacuum packaging, including sous vide.

Refuse
Solid waste not carried by water through the SEWAGE system.

Regulatory authority
The MEDICAL COMMANDER, including preventive medicine personnel or designated representative acting under the authority of the MEDICAL COMMANDER, having jurisdiction over the FOOD ESTABLISHMENT.

Restricted use pesticide
A pesticide product that contains the active ingredients specified in 40 CFR 152.175 and that is limited to use by or under the direct supervision of a certified applicator.

Safe material
a. An article manufactured from or composed of materials that may not reasonably be expected to result, directly or indirectly, in their becoming a component or otherwise affecting the characteristics of any FOOD;
b. An ADDITIVE that is used as specified in the Federal Food, Drug, and Cosmetic Act §§ 409 or 706; or
c. Other materials that are not ADDITIVES and that are used in conformity with applicable regulations of the FDA.

Safe temperatures
a. Temperatures that comply with the temperature requirements in this bulletin.
b. Unless otherwise specified in this bulletin, the SAFE TEMPERATURES for PHF are 40 °F (4.4 °C) or below and 140 °F (60 °C) or above.

Sanitization
The application of cumulative heat or chemicals on cleaned FOOD-CONTACT SURFACES that, when evaluated for efficacy, is sufficient to yield a reduction of 5 logs, which is equal to a 99.999 percent reduction, of representative disease microorganisms of public health importance.

Sealed
Free of cracks or other openings that allow the entry or passage of moisture.

Self evaluation
FOOD safety and sanitation inspections performed by the FOOD service PERSON-IN-CHARGE or other EMPLOYEES.

Servicing area
An operating base location to which a mobile FOOD ESTABLISHMENT or transportaion vehicle returns regularly for such things as discharging liquid or solid wastes, refilling water tanks and ice bins, and boarding FOOD. For VENDING machine operation, SERVICING AREA includes the operating base that supports the VENDING operation.

Sewage
Liquid waste that contains animal or vegetable matter in suspension or solution and may include liquids that contain chemicals in solution.

Shellfish control authority
A State, Federal, foreign, tribal, or other government entity legally responsible for administering a program that includes certification of MOLLUSCAN SHELLFISH harvesters and dealers for interstate commerce.

Shellstock
Raw, in-shell MOLLUSCAN SHELLFISH.

Should
Indicates a strong recommendation and is optional.

Shucked shellfish
MOLLUSCAN SHELLFISH that have one or both shells removed.

Single-service articles
TABLEWARE, carry out UTENSILS, and other items (such as bags, containers, placemats, stirrers, straws, toothpicks, and wrappers) that are designed and constructed for one-time, one-PERSON use.

Single-use articles
a. UTENSILS and bulk FOOD containers designed and constructed to be used once and discarded.
b. Includes items (such as wax paper, butcher paper, plastic wrap, formed aluminum FOOD containers, jars, plastic tubs or buckets, bread wrappers, pickle barrels, ketchup bottles, and number 10 cans) that do not meet the materials, durability, strength, and cleanability specifications under ¶¶ 4-3 and 4-18 for multiuse UTENSILS.

Slacking
The process of moderating the temperature of a FOOD, such as allowing a FOOD to gradually increase from a temperature of –10 °F (–23 °C) to 25 °F (–4 °C) in preparation for deep-fat frying or to facilitate even heat penetration during the cooking of previously block-FROZEN FOOD, such as spinach.

Smooth
a. A FOOD-CONTACT SURFACE having a surface free of pits and inclusions with a cleanability equal to or exceeding that of (100 grit) number 3 stainless steel.
b. A nonFOOD-CONTACT SURFACE of EQUIPMENT having a surface equal to that of commercial grade hot-rolled steel free of visible scale.
c. A floor, wall, or ceiling having an even or level surface with no roughness or projections which render it difficult to clean.

Sous vide
A French term meaning "under vacuum." Partially or fully cooked food is vacuum packaged in individual pouches and then chilled. They remain chilled or frozen until heated for consumption.

Splash zone
Surfaces other than FOOD ZONES subject to routine SPLASH, spillage, or other FOOD soiling during normal use.

Support animal
A trained animal, such as a seeing-eye dog, that accompanies a PERSON with a disability to assist in managing the disability and enables the PERSON to perform functions that the PERSON would otherwise be unable to perform.

Table-mounted equipment
EQUIPMENT that is not portable and is designed to be mounted off the floor on a table, counter, or shelf.

Tableware
Eating, drinking, and serving UTENSILS for table use, such as flatware including forks, knives, and spoons; HOLLOWWARE including bowls, cups, serving dishes, and tumblers; and plates.

Temperature measuring device (also written as TMD)
A thermometer, thermocouple, thermistor, or other device that indicates the temperature of FOOD, air, or water.

Tempering
The process by which the internal product temperature of FROZEN FOODS is elevated under controlled conditions to facilitate separation and handling to above 25 °F (–4 °C).

Temporary food establishment
A FOOD ESTABLISHMENT that operates for a period of no more than 14 consecutive days in conjunction with a single event or celebration.

Thawing
See Tempering.

Utensil
A FOOD-CONTACT implement or container (such as KITCHENWARE, HOLLOWWARE, or TABLEWARE that is multiuse, SINGLE-SERVICE, or SINGLE-USE; gloves used in contact with FOOD; and FOOD TMDs) used in the storage, preparation, transportation, dispensing, sale, or service of FOOD.

Vending machine
A self-service device that, upon insertion of a coin, paper currency, token, card, or key, dispenses unit servings of FOOD in bulk or in packages without the necessity of replenishing the device between each vending operation.

Vending machine location
The room, enclosure, space, or area where one or more VENDING MACHINES are installed and operated, including the storage areas and areas on the PREMISES that are used to service and maintain the VENDING MACHINES.

Warewashing
The cleaning and SANITIZING of FOOD-CONTACT SURFACES of EQUIPMENT and UTENSILS.

Water activity (also written a_w)
The measurement of free moisture in a FOOD. WATER ACTIVITY is the quotient of the water vapor pressure of the substance divided by the vapor pressure of pure water at the same temperature. WATER ACTIVITY is indicated by the symbol a_w.

Will
Indicates that a requirement is mandatory and WILL be observed.

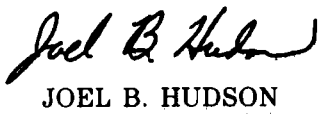
INDEX

This index is organized alphabetically by topic and by subtopic within topic. Topics and subtopics are identified by paragraph number.

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army

Distribution:
To be distributed in accordance with Initial Distribution Number (IDN), 341780, requirements for TB MED 530.

PIN: 052277-000

COMPREHENSIVE FOOD ESTABLISHMENT INSPECTION

For use of this form, see TB MED 530; the proponent agency is the OTSG.

1. ESTABLISHMENT NAME	2. BUILDING NO.	3. ESTABLISHMENT ADDRESS *(Include Installation and MACOM)*
4. PERSON-IN-CHARGE	5. COPY REPORT FURNISHED TO	

6. TYPE OF ESTABLISHMENT

- ☐ 1. Troop Dining Facility
- ☐ 2. Cafeteria
- ☐ 3. Snack Bar
- ☐ 4. Hospital Dining Facility
- ☐ 5. Club
- ☐ 6. Other *(specify)*

7. RATING

- ☐ 1. Excellent
- ☐ 2. Satisfactory
- ☐ 3. Unsatisfactory
- ☐ 4. Other *(specify)*

8. PURPOSE

- ☐ 1. Initial
- ☐ 2. Routine
- ☐ 3. Follow-Up
- ☐ 4. Other *(specify)*

9. DURATION OF INSPECTION *(Minutes)*

10. STANDARDS/REQUIREMENTS *(Indicate all that have not been met.) (Paragraphs of TB MED 530 that explain each requirement are listed on page 2.)*

DESCRIPTION	PTS
FOOD	
*1 Approved source, sound condition, no evidence of spoilage	5
2 Original container, properly labeled	1
FOOD PROTECTION	
*3 PHF meets time/temperature requirements during storage, preparation, display, service, transport, and leftover	5
*4 Equipment to maintain product temperatures	4
5 Thermometers provided, must be conspicuous and accurate	1
*6 Proper tempering/thawing of PHF	4
*7 PHF offered for self-service, not re-served	3
8 Food protected during storage, preparation, display, service, and transport	2
9 Handling of food/ice minimized	2
10 In use, food/ice utensils properly stored	1
PERSONNEL	
11 Training program records available	1
12 Person-in-charge certified	3
*13 No evidence of communicable diseases, skin infections, cuts, burns	5
*14 Hands washed and clean, good hygiene practices	5
15 Clean work garments: hair restraints; no unauthorized jewelry, watches	2
FOOD EQUIPMENT AND UTENSILS	
*16 Food/ice contact surfaces are nontoxic, properly designed, constructed, installed, located, and maintained	3
17 Nonfood contact surfaces properly designed, constructed, installed, located, and maintained	2
18 Warewashing machine properly designed, constructed, installed, located, and maintained	2
*19 Accurate temperature measuring devices and chemical test kits provided/used	3
20 Utensils preflushed, scraped, soaked	1

DESCRIPTION	PTS
FOOD EQUIPMENT AND UTENSILS *(con't)*	
21 Wash and rinse water clean and proper temperature	2
*22 Sanitization rinse is clean and at correct temperature, concentration, exposure time, and pressure	5
23 Wiping cloths: clean, restricted in use, stored in sanitizing solution	1
*24 Food contact surfaces of equipment and utensils: clean, sanitized between uses, free of abrasives/ detergents	4
25 Nonfood contact surfaces of equipment and utensils clean	1
26 Proper storage, handling of clean, sanitized equipment and utensils	2
27 Single-service items: not reused, properly stored, and dispensed	2
WATER	
*28 Safe approved sources, adequate hot and cold water, adequate pressure	4
SEWAGE	
*29 Adequate sewage and liquid waste disposal	4
PLUMBING	
30 Installed, maintained properly	1
*31 No cross-connection, potential back siphonage, backflow	5
TOILET AND LAVATORY FACILITIES	
32 Adequate number, convenient, accessible, designed and installed properly	3
33 Toilet rooms enclosed with self-closing doors; in good repair; adequate handwashing and drying; waste receptacles	3
GARBAGE AND REFUSE DISPOSAL	
34 Containers or receptacles covered, adequate number, vermin-proof, emptied frequently, clean	3

DESCRIPTION	PTS
GARBAGE AND REFUSE DISPOSAL *(con't)*	
35 Outside storage area properly constructed, clean; adequate container washing facilities	1
INSECT, RODENT, OTHER ANIMAL CONTROL	
*36 No evidence of insects/rodents or other unauthorized animals	4
FLOORS, WALLS, AND CEILINGS	
37 Floors: in good repair, proper drainage, proper construction and materials, durable floor covering, dustless cleaning methods used	2
38 Walls, ceilings, attached equipment: constructed properly, in good repair, clean surfaces, dustless cleaning methods used	1
LIGHTING	
39 Lighting adequate, fixtures shielded, protected	1
VENTILATION	
40 Rooms and equipment vented as required	1
*41 Filters and grease extracting equipment clean and properly installed	4
DRESSING ROOMS/AREAS	
42 Clean, lockers provided, convenient location, used	1
OTHER OPERATIONS	
*43 Necessary toxic items properly stored, labeled, used	4
44 Premises: maintained free of litter, no unnecessary articles or equipment, maintenance equipment properly stored, authorized personnel only	1
45 Clean/soiled linen properly stored	1
46 Complete separation of food operations from living/sleeping quarters, laundry	1
47 Other *(specify)*	1
RATING SCORE IF USED 48 *(Sum 1-47; subtract from 118)* _____	
FOLLOW-UP 49 Yes..... ☐ 50 No..... ☐	

*Critical deficiencies requiring immediate correction - Use DA Form 5161-1-R for additional remarks.

11. NAME AND SIGNATURE OF INSPECTOR	12. TIME OF INSPECTION	13. DATE OF INSPECTION *(YYYYMMDD)*
14. NAME AND SIGNATURE OF PERSON-IN-CHARGE		15. DATE RECEIVED *(YYYYMMDD)*

ITEM NUMBER	PARAGRAPHS*
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22	4-41, 4-43, 4-44
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29	5-12, 5-13, 5-28, 7-11, 8-10, 8-11
30	5-14, 8-14, 10-30
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37	6-3 thru 6-8
38	6-9 thru 6-12
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43	11-1 thru 11-16
44	3-62, 5-30, 6-15, 6-21, 6-23
45	5-38 thru 5-40
46	6-25

*Appropriate paragraph will depend on the actual violation identified. List is not all-inclusive, and other paragraphs may apply.

FOOD ESTABLISHMENT SANITATION INSPECTION - REMARKS FORM

For use of this form, see TB MED 530; the proponent agency is OTSG.

Form will be attached to and becomes a permanent part of DA Form 5161-R.

1. ESTABLISHMENT	2. DATE *(YYYYMMDD)*	3. INSPECTOR

4. TEMPERATURE DATA

a. Refrigerator Temperatures		b. Freezer Temperatures		c. Hot Holding Temperatures		d. Food Temperatures	
UNIT	°F	UNIT	°F	UNIT	°F	UNIT	°F

5. WAREWASHING DATA

a. Manual	
(1) Sanitizing Temperature (°F)	
(2) Chemical Sanitizer Type	
(3) Chemical Sanitizer Concentration (ppm)	
b. Mechanical	
(1) Wash Temperature (°F)	
(2) Rinse Temperature (°F)	
(3) Final Rinse Temperature (°F)	
(4) Chemical Sanitizers (Type and Concentration) (ppm)	
(5) Final Rinse Time (Seconds)	

6. REMARKS

ROUTINE FOOD ESTABLISHMENT INSPECTION REPORT

For use of this form, see TB MED 530; the proponent agency is OTSG.

1. ESTABLISHMENT NAME

2. ESTABLISHMENT ADDRESS

3. PURPOSE	4. RATING	5. FOLLOW-UP INSPECTION REQUIRED	6. NUMBER AND TYPE OF VIOLATIONS
☐ ROUTINE	☐ EXCELLENT	☐ NO	_____ CRITICAL
☐ FOLLOW-UP	☐ SATISFACTORY	☐ YES	_____ NONCRITICAL
☐ SELF EVALUATION	☐ UNSATISFACTORY	REINSPECTION DATE *(YYYYMMDD)* _____	

7. WAREWASHING DATA		8. REFRIGERATOR/FREEZER UNIT TEMPERATURES		9. COLD OR HOT PHF TEMPERATURES	
		Type	°F	Food, Location	°F
a. MANUAL (1) SANITIZING TEMPERATURES (°F) AND LOCATIONS					
(2) CHEMICAL SANITIZERS (Type and Concentration)					
b. MECHANICAL (1) WASH CYCLE TEMPERATURE (°F)					
(2) FINAL RINSE TEMPERATURE (°F)					
(3) CHEMICAL SANITIZERS (Type and Concentration)					
(4) FINAL RINSE TIME (Seconds)					

10. VIOLATIONS *(List critical first.)*

a. CRITICAL		b. REPEAT		c. REFERENCE PARAGRAPH FROM TB MED 530	d. VIOLATION DESCRIPTION/REMARKS/CORRECTIVE ACTIONS	e. CORRECTED BY (Initials/Date)
YES	NO	YES	NO			

10. VIOLATIONS *(List critical first.) (Continued)*

a. CRITICAL		b. REPEAT		c. REFERENCE PARAGRAPH FROM TB MED 530	d. VIOLATION DESCRIPTION/REMARKS/CORRECTIVE ACTIONS	e. CORRECTED BY (Initials/Date)
YES	NO	YES	NO			

11a. INSPECTOR'S NAME AND SIGNATURE	11b. DATE OF INSPECTION *(YYYYMMDD)*	11c. TIME OF INSPECTION
11d. INSPECTOR'S UNIT	11e. UNIT'S TELEPHONE NUMBER	
12a. ESTABLISHMENT REPRESENTATIVE'S NAME AND SIGNATURE		
12b. ESTABLISHMENT REPRESENTATIVE'S TITLE	12c. DATE RECEIVED *(YYYYMMDD)*	

FOOD ESTABLISHMENT RISK ASSESSMENT SURVEY

For use of this form, see TB MED 530; the proponent agency is OTSG.

1. ESTABLISHMENT NAME

2. ESTABLISHMENT ADDRESS

3. TELEPHONE NUMBER

4. HOURS OF OPERATION

5. RISK CATEGORY (Points are the score from Block 12.)

- ☐ High Risk Food Establishment — 41 or above
- ☐ Moderate Risk Food Establishment — 15 - 40
- ☐ Low Risk Food Establishment — 14 or less

RISK FACTORS	YES	NO	POINT VALUE *(For Yes Response)*	AWARDED POINTS
6. FOOD PROPERTY: Properties of food risks that are common to a specific food or group of foods that are known to contribute to the likelihood of foodborne illness. Various levels of risk are associated with specific foods.				
a. Raw or undercooked protein-rich foods (e.g., shellfish, sushi, finfish, Carpaccio, Steak Tartar, or poultry).			8	
b. Game animals (1) Wild			8	
(2) Commercially raised			5	
c. Stuffed foods (e.g., pasta, meat, or poultry).			5	
d. Fully cooked protein-rich foods (e.g., roast beef, prime rib, steak, pork, ground meat, finfish, or fresh shellfish).			5	
e. Prepared items (e.g., gravy; sauces; stews and soups; beans; refried beans; rice; cooked pasta; tofu/soy products; French toast; omelettes; cook-to-order eggs; quiche; potato, macaroni, or tuna salad; or PH ethnic foods).			5	
f. Dairy products (e.g., milk, cheese, or butter).			4	
g. Processed items (e.g., canned or frozen finfish/shellfish, deli meats, cream pies and pastries, fresh/frozen pizza, or hotdogs).			3	
h. Cooked and raw fruits and vegetables.			3	
i. Pre-prepared items (e.g., heat and serve sandwiches, frozen dinners, or non-dairy beverages).			3	
j. Vending and snack foods (e.g., canned soda, canned soups, candy, chips, and other non-PHF).			0	
k. Operational rations (1) Unitized group ration (e.g., heat and serve, A, B, and T).			4	
(2) Individual rations (e.g., MREs, cold weather, survival, and long-range patrol).			3	
			TOTAL	
7. POPULATION SERVED: Specific populations are more likely to develop foodborne illness based on age and environment. Likelihood of foodborne illness also increases with number of meals served.				
a. Meals served per day (1) >600			10	
(2) 300 - 600			6	
(3) 150 - 299			4	
(4) <150			2	
b. Typical patronage (1) Highly susceptible population: infants or children (less than 5 years of age), elderly, or infirmed who are fed at or from day care, elementary schools, retirement homes, convalescent centers, and hospitals. (This category considers population and location where food is prepared or served.)			10	
(2) Military personnel during deployments or extended (>2 weeks) field training exercises.			10	
(3) All others (general population).			0	
			TOTAL	

RISK FACTORS	YES	NO	POINT VALUE *(For Yes Response)*	AWARDED POINTS
8. FOOD ESTABLISHMENT HISTORY: Inspection and personnel histories provide insight as to where resources and training should be directed.				
a. Two or more unsatisfactory inspections in the previous 12-month period.			8	
b. Two or more validated customer sanitation complaints within last 12 months.			5	
c. Turnover of persons-in-charge and supervisory personnel within the last 6 months.			5	
			TOTAL	
9. FOOD ESTABLISHMENT OPERATION: Operational risk associated with specific food or group of foods known to contribute to the likelihood of foodborne illness. Various levels of risk are associated with specific foods.				
a. Temperature-controlled processes (e.g., cooking and holding PHFs, either hot or cold).			6	
b. Re-heating leftovers and pre-prepared PHFs.			6	
c. Cooling of PHFs.			6	
d. Manual preparation of ready-to-eat foods (e.g., sandwiches, salads, or slicing meats).			5	
e. Remote, satellite, or field feeding (to include transport of PHFs).			4	
			TOTAL	
10. FOOD ESTABLISHMENT FACILITIES AND EQUIPMENT				
a. Inadequate handwashing facilities. (Use of field expedient handwashing facilities is acceptable.)			5	
b. Inadequate refrigeration/cooling equipment.			5	
c. Inadequate heating/hot holding/cooking equipment.			5	
d. Inadequate dishwashing and pot and pan washing facilities and equipment.			5	
			TOTAL	
	GROSS COMPOSITE SCORE (Sum of Totals in 6 - 10)			
11. TRAINING CREDIT				
a. Food Service Manager(s) certified (available and current).			-5	
b. Food Employee Training Program in place which covers food safety and sanitation. Employee records must be available and current.			-5	
	TOTAL CREDIT SCORE			
	12. ADJUSTED SCORE (Gross Composite Score minus (-) Total Credit Score)			

13. REMARKS

14a. NAME, JOB TITLE, AND SIGNATURE OF ASSESSOR	14b. DATE *(YYYYMMDD)*
15a. NAME AND SIGNATURE OF ENVIRONMENTAL HEALTH SUPERVISOR	15b. DATE *(YYYYMMDD)*

HAZARD ANALYSIS CRITICAL CONTROL POINT (CCP) MONITORING REPORT

For use of this form, see TB MED 530; the proponent agency is OTSG.

1. ESTABLISHMENT NAME

2. ESTABLISHMENT ADDRESS

3. FOOD

4. HAZARD

PROCESS (STEPS) CIRCLE CCPs	CRITERIA FOR CONTROL	MONITORING PROCEDURE OR WHAT TO LOOK FOR	ACTIONS TO BE TAKEN WHEN CRITERIA ARE NOT MET
5. RECEIVING/ STORING	a. ☐ Approved source (inspected) ☐ Shellfish tag ☐ Raw/Cooked/Separated in storage ☐ Refrigerate at ≤40°F ☐ Free of deterioration or spoilage	b. ☐ Shellfish tags available ☐ Shellfish tags complete ☐ Measure food temperature ☐ No raw foods stored above cooked or ready-to-eat foods ☐ Organoleptic testing	c. ☐ Discard food ☐ Return food to vendor ☐ Separate raw and cooked food ☐ Discard cooked food contaminated by raw food Food Temperature: ☐ More than 40°F for more than 4 hours, discard food
6. THAWING	a. ☐ Under refrigeration ☐ Under running water <70°F; product ≤40°F or >40°F for less than 4 hours ☐ Microwave ☐ Part of cook process	b. ☐ Observe method ☐ Measure food temperature	c. ☐ Running water >70°F, use alternative thawing method ☐ Food temperature >40°F for more than 4 hours, discard food
7. PROCESSING PRIOR TO COOKING	a. ☐ Food ≤40°F or no more than 4 hours or less at >40°F	b. ☐ Observe quantity of food at room temperature ☐ Observe time food held at room temperature	c. ☐ Food temperature >40°F for more than 4 hours, discard food (time includes thawing time if food temperature was >40°F)
8. COOKING	a. ☐ Temperature to kill pathogens: Food temperature at thickest part more than or equal to _____ °F	b. ☐ Measure food temperature at thickest part	c. ☐ Continue cooking until food temperature at thickest part is more than or equal to _____ °F
9. HOT HOLDING	a. ☐ Food temperature at thickest part more than or equal to _____ °F	b. ☐ Measure food temperature at thickest part every _____ hour(s)	c. Food temperatures: ☐ <140°F for more than 4 hours, discard food ☐ <140°F for less than 4 hours, rapidly reheat to 165°F and hold at 140°F
10. COOLING	a. 140°F to 70°F in 2 hours, 70°F to 40°F in 4 additional hours by the following techniques (check all that apply): ☐ Product depth ≤ _____ inches ☐ Ice water bath and stirring ☐ Solid pieces should be ≤ 6 lbs ☐ Not covered until cold ☐ Other	b. Measure food temperature during cooling every _____ minute(s) ☐ Food depth ☐ Food iced ☐ Food stirred ☐ Food size ☐ Food placed in rapid chill refrigeration unit ☐ Food uncovered	c. Food temperatures: ☐ 140°F to 70°F for more than 2 hours, but less than 4 hours; rapidly (<2 hours) reheat to 165°F, serve hot ☐ 140°F to 70°F for more than 4 hours, discard food ☐ 70°F to 40°F for more than 4 hours, discard food

PROCESS (STEPS) CIRCLE CCPs	CRITERIA FOR CONTROL	MONITORING PROCEDURE OR WHAT TO LOOK FOR	ACTIONS TO BE TAKEN WHEN CRITERIA ARE NOT MET
11. PROCESSING SLICING DEBONING MIXING DICING ASSEMBLING SERVING	a. Prevent contamination by: ☐ Cold PHF at temperature ≤40°F ☐ Hot PHF at temperature ≥140°F ☐ Equipment and utensils clean and sanitized	b. Observe method: ☐ Wash and sanitize equipment and utensils ☐ Use prechilled ingredients for cold foods ☐ Minimize quantity of food at room temperature ☐ Measure food temperature	c. ☐ Hot PHF less than 140°F for less than 4 hours, rapidly reheat to 165°F and hold at 140°F If yes to the following, discard food: ☐ Cold PHF >40°F for more than 4 hours ☐ Hot PHF <140°F for more than 4 hours ☐ Raw or ready-to-eat food contaminated by other food, equipment, or utensils
12. REHEATING	a. Temperature to kill pathogens: ☐ Food temperature at thickest part ≥165°F ☐ Other _____ °F	b. ☐ Measure food temperature at thickest part	c. ☐ Continue cooking until food temperature at thickest part is ≥165°F
13. HOLDING FOOD, HOT/COLD TRANSPORTING FOOD	a. Food temperatures: ☐ ≥140°F at thickest part ☐ ≤40°F at thickest part	b. ☐ Measure food temperature every 2 hours during holding/transporting	c. ☐ >40°F or <140°F for more than 4 hours, discard ☐ <140°F for less than 4 hours, rapidly reheat to 165°F and hold at 140°F ☐ >40°F for less than 4 hours, refrigerate to <40°F; serve immediately
14. FOOD HANDLER HEALTH/HYGIENE	a. Prevent contamination by: ☐ Ill employee not working ☐ Proper handwashing ☐ No bare hand contact with ready-to-eat foods	b. Observe method: ☐ Employee's health ☐ Use of gloves, utensils, deli tissues ☐ Handwashing technique	c. If yes to the following, discard food: ☐ Ill employee working with food ☐ Direct hand contact with ready-to-eat PHFs

15. VERIFICATION OF CCP MONITORING AS DESCRIBED IN PLAN: ☐ YES ☐ NO

REMARKS

16. VERIFICATION OF CORRECTIVE ACTION RECORDS SHOWS COMPLIANCE: ☐ YES ☐ NO

REMARKS

17. EQUIPMENT READINGS (Grill surfaces, oven settings, thermometers, pH meters)

EQUIPMENT	DATE CALIBRATED *(YYYYMMDD)*	ACTUAL READING VS. CALIBRATED READING

18a. FOOD	18b. CONTAINER SIZE
18c. LOCATION/STATION	

18d. TIME - TEMPERATURE SURVEY DATA

TIME	TEMPERATURE	TIME	TEMPERATURE

19a. INSPECTOR'S SIGNATURE	19b. DATE *(YYYYMMDD)*	19c. TIME
19d. INSPECTOR'S UNIT NAME	19e. TELEPHONE NUMBER	
20a. ESTABLISHMENT REPRESENTATIVE'S NAME	20b. TITLE	
20c. ESTABLISHMENT REPRESENTATIVE'S SIGNATURE	20d. DATE *(YYYYMMDD)*	