

JSC Safety and Health Handbook	JPR No.	1700.1K
	Effective Date:	11/25/2013
	Expiration Date:	11/25/2018
	Page Number	Page 6.4-1 of 6

Chapter 6.4 Food Safety

This could be you . . .

A food employee did not wash his hands after using the restroom. The food he prepared for the salad bar was contaminated because he did not follow proper handwashing procedures. Six percent of the staff members became ill with acute dysentery. Symptoms included chills, fever, abdominal cramps, and the abrupt onset of profuse watery or bloody diarrhea. Twenty-four individuals required hospitalization for intravenous hydration. The duration of illness for most persons ranged from 3 to 8 days.

6.4.1 Applicability of this chapter

You are required to follow this chapter if you handle, store, or transfer food as a part of your job. This chapter only applies to retail food establishments (cafeterias, snack bars, Gilruth), Aaron Cohen Childcare Center, vending machines and bottled water dispensers.

6.4.2 What this chapter covers

6.4.2.1 This chapter describes the basic methods for you to use in preventing food-borne illness. Food served at JSC shall be clean, wholesome, free from germs or other toxins, and meet consumer expectations. It applies to transporting, storing, preparing, serving, vending, and inspecting food. This chapter meets the provisions in the following:

- a. United States Department of Health and Human Services, U.S. Food and Drug Administration (FDA) publications titled "Food Code" and "Managing Food Safety: A Manual for the Voluntary Use of HACCP [Hazard Analysis and Critical Control Point] Principles for Operators of Food Service and Retail Establishments."
- b. Texas Food Establishment Rules and other applicable regulations of the Texas Department of State Health Services (DSHS).
- c. Food Ordinance of the City of Houston.
- d. NPR 1800.1, Chapter 4.

6.4.3 Food Safety Hazards and Hazard Analysis Critical Control Points (HACCP)

6.4.3.1 Food safety hazards are biological, chemical, or physical agents that can cause illness or injury if not controlled. Preventing food-related illnesses or injuries requires the implementation of active managerial control. The FDA defines active managerial control "as the purposeful incorporation of specific actions or procedures by industry management into the operations of their business to attain control of the foodborne illness risk factors."

6.4.3.2 HACCP is a prevention-based food safety management system that identifies and monitors specific food safety hazards. A HACCP program is designed to ensure that hazards are prevented, eliminated, or reduced to an acceptable level before a food reaches the consumer.

JSC Safety and Health Handbook	JPR No.	1700.1K
	Effective Date:	11/25/2013
	Expiration Date:	11/25/2018
	Page Number	Page 6.4-2 of 6

Active managerial control is achieved through the use of HACCP principles, which include identifying the food safety hazards attributed to products, determining the necessary steps that will control the identified hazards, and implementing on-going practices or procedures that will ensure safe food.

6.4.3.3 If you prepare food on site, and are covered by this chapter, you shall follow a HACCP or equivalent management system that includes and implements a process of self-inspection and continuous improvement.

6.4.4 Requirements for food service managers and food handlers

6.4.4.1 Food Service Managers shall remain current in a Food Manager Certification Program. Food Service Managers and Food Service Employees at JSC shall:

- a. Have an initial medical examination within 30 days of employment and annual examinations thereafter (JSC Form 270, Johnson Space Center Job-Related Physicals). See Chapter 3.6, "Occupational Healthcare Program," of this Handbook for more details. This applies to anyone involved in preparing or serving food and beverages. Medical examinations are performed at the JSC Clinic and you will be provided with a Patient Qualification Letter by the physician. The Patient Qualification Letter shall be posted or on file at the food facility for inspection purposes.
- b. Never work with or around food or food preparation areas if you:
 - (1) Are affected with a disease in a communicable form or are a carrier of a disease
 - (2) Are afflicted with boils
 - (3) Have infected wounds
 - (4) Have an acute respiratory infection
- c. Follow effective personal hygiene practices:
 - (1) Use gloves to avoid bare-hand contact with food.
 - (2) Keep hands and exposed portions of arms clean by washing frequently.
 - (3) Wear clean outer garments if you handle food, equipment, utensils or food-contact surfaces.
 - (4) Wear hair and beard restraints if you prepare or serve food. The restraint shall completely cover your hair to protect food and food-contact surfaces.
- d. Follow applicable federal, state, and local laws. Also, follow specific requirements of NPR 1800.1, Chapter 4.12 and the FDA Food Code.

6.4.5 Protecting food from contamination

6.4.5.1 This section is not all-inclusive but highlights key food safety techniques required to help prevent food-borne illnesses.

As a food service manager or employee, you shall:

- a. Thoroughly wash your hands and arms with soap and warm water:

Verify correct version before use at

<http://server-mpo.arc.nasa.gov/Services/CDMSDocs/Centers/JSC/Home.tml>.

JSC Form JF2420B (MS Word.....)

JSC Safety and Health Handbook	JPR No.	1700.1K
	Effective Date:	11/25/2013
	Expiration Date:	11/25/2018
	Page Number	Page 6.4-3 of 6

- (1) Before starting work
 - (2) During work hours, as often as necessary, to remove soil and contamination
 - (3) After using the toilet room
 - (4) After using tobacco products, applying cosmetics, or eating
- b. Provide conveniently located refrigeration facilities, hot food storage and display facilities, and effective insulated facilities as needed to make sure all food is kept at required temperatures during storage, preparation, display, and service. Unless otherwise specified by the FDA Food Code:
- (1) Cold foods should be held at or below 41°F
 - (2) Hot foods should be held at or above 135°F
- c. Ensure that all food items you serve are:
- (1) Properly labeled and dated. Use all food within the designated shelf life. Remove outdated food items. Use First-In-First-Out procedures.
 - (2) Free from spoilage.
- d. Protect food items being stored, prepared, displayed, served, sold, or transported between activities from all sources of contamination. You shall:
- (1) Store food in a clean location protected from dust, flooding, insects, rodents or other sources of contamination.
 - (2) Protect unpackaged food on display by using effective, easily cleanable devices, such as food guards, display cases, containers, or other kinds of protective equipment.
 - (3) Provide appropriate utensils or dispensing methods for consumer self-service operations.
- e. Keep all refuse that contains food waste in appropriate receptacles (i.e., waste cans lined with plastic bags and covered with tight-fitting lids). Empty and clean receptacles regularly to prevent objectionable odors, soil buildup, and attracting insects and rodents.
- f. Implement effective control measures to prevent rodents, insects, and other vermin from entering food service and preparation areas. This includes:
- (1) Filling or closing holes and other gaps along floors, walls, and ceilings
 - (2) Closed, tight-fitting windows and self-closing, tight-fitting doors
- g. Ensure that all areas of the food service facility are kept clean and in good working order. The physical facility, equipment, food-contact surfaces, and non-food-contact surfaces shall be cleaned according to the methods and frequency described in the FDA Food Code (<http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FoodCode/default.htm>).

JSC Safety and Health Handbook	JPR No.	1700.1K
	Effective Date:	11/25/2013
	Expiration Date:	11/25/2018
	Page Number	Page 6.4-4 of 6

6.4.6 Vending machines

6.4.6.1 If you are responsible for vending machine operations or a vending machine, you shall:

- a. Have a procedure describing your responsibilities for the maintenance of the vending machine and the food it contains.
- b. Ensure the interior and exterior of the machines are cleaned regularly to prevent the accumulation of dust, dirt, food residue, and other debris.
- c. Ensure vending machine maintains appropriate temperatures:
 - (1) In a refrigerated vending machine, the ambient air temperature may not exceed 41°F for more than 30 minutes immediately after the machine is filled, serviced, or restocked.
 - (2) In a hot holding vending machine, the ambient air temperature may not be less than 135°F for more than 120 minutes immediately after the machine is filled, serviced, or restocked.
- d. Ensure any machine vending perishable or potentially hazardous food has an automatic control to prevent the machine from dispensing food when appropriate hold temperatures are not maintained.
- e. Ensure that all food offered for sale through vending machines is:
 - (1) Made, processed, and prepared in facilities that follow applicable federal, state, and local laws and regulations
 - (2) Stored or packaged in clean, protective containers and handled, transported, and vended in a sanitary manner
 - (3) Clearly labeled to indicate the product name and the date by which the food shall be consumed, sold, or discarded. This information shall be easily visible to the consumer

6.4.7 Bottled Water Dispensers

6.4.7.1 Use only bottled water approved by the Occupational Health Branch in bottled water dispensers. Never refill empty bottles yourself. Only the processor is allowed to refill bottles. All organizations using bottled water shall ensure that:

- a. No bottles of water or bottled water dispensers are located or stored in areas where general hazards or contamination of any kind poses a threat to users under normal operations.
- b. Contractors and subcontractors furnishing bottled water provide routine chemical and microbiological laboratory analysis reports for bottled water delivered to the Center.
- c. Bottled water dispensers are maintained in a sanitary condition.
- d. All dispensers have equipment numbers.
- e. There is prompt recall of the suspect bottled water or other appropriate action when notified of contamination.
- f. Place bottled water dispensers on a quarterly maintenance/sanitation schedule to prevent contamination and biofilm growth. See Appendix F, Attachment 6.4A for instructions on cleaning.
 - (1) Make sure hands are clean prior to handling the bottles.

JSC Safety and Health Handbook	JPR No.	1700.1K
	Effective Date:	11/25/2013
	Expiration Date:	11/25/2018
	Page Number	Page 6.4-5 of 6

(2) Make sure bottle necks are clean prior to installation into the cooler.

6.4.8 Inspections and food concerns

6.4.8.1 The Occupational Health Branch is responsible for inspections and food concerns and will:

- a. At a minimum, inspect your food service activities per the following schedule:
 - (1) Buildings 3 and 11 cafeterias, Buildings 1 and 4S snack bars, and Building 207 kitchen are inspected quarterly.
 - (2) Building 211 (Child Care Center) is inspected semi-annually in conjunction with the Child Care Center inspection.
 - (3) Vending machines will be inspected for general cleanliness during annual Workplace Health Inspections and in response to complaints. The Occupational Health Branch will work with the Exchange Operations to correct problems.
- b. Examine and sample food as often as necessary to detect contamination or misbranding.
- c. Place food orders on hold if they are unwholesome, misbranded, show signs of contamination or require examination by laboratory. You shall never:
 - (1) Remove or alter food orders placed on hold by health authorities. You may request that the hold order be stored in a suitable location away from food preparation and service.
 - (2) Remove or alter notices or tags placed on food by the health authorities.
 - (3) Dispose of food orders held by health authorities without permission.
- d. Investigate all reports of suspected food-borne illnesses. Investigations will include inspecting the food service establishment's processes and procedures, and examining food service employees' health history, as necessary. The Occupational Health Branch reserves the right to:
 - (1) Restrict an employee from any or all food service or vending activities. The employee may also be required to obtain a medical release before returning to work.
 - (2) Close any food service or vending establishment until health concerns have been addressed..
- e. Investigate spoiled food products from vending machines. The Occupational Health Branch will work with the Exchange Operations to correct problems.

JSC Safety and Health Handbook	JPR No.	1700.1K
	Effective Date:	11/25/2013
	Expiration Date:	11/25/2018
	Page Number	Page 6.4-6 of 6

6.4.9 Who to contact for food service concerns

<i>For . . .</i>	<i>Coordinate with the . . .</i>
Scheduling and performing food service inspections or investigating food-related complaints	Occupational Health Branch x36726
Scheduling medical examinations	JSC Occupational Medicine Clinic x34111
Ensuring compliance with requirements	Exchange Operations Manager

6.4.10 Other references

- a. Diagnosis and Management of Food-borne Illnesses, A Primer for Physicians and Other Health Care Professionals, an Introduction and Clinical Considerations. Web site:
http://www.ama-assn.org/ama1/pub/upload/mm/36/2004_food_introclin.pdf.
- b. HACCP-Based Standard Operating Procedures (SOPs). Web site:
<http://sop.nfsmi.org/HACCPBasedSOPs.php>
- c. Hand Hygiene in Retail & Food Service Establishments. Web site:
<http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/IndustryandRegulatoryAssistanceandTrainingResources/ucm135577.htm>
- d. Managing Food Safety: A Manual for the Voluntary Use of HACCP Principles for Operators of Food Service and Retail Establishments. Web site:
<http://www.fda.gov/downloads/Food/FoodSafety/RetailFoodProtection/ManagingFoodSafetyHACCPPrinciples/Operators/UCM077957.pdf>
- e. Managing Food Safety: A Regulator's Manual for Applying HACCP Principles to Risk-based Retail and Food Service Inspections and Evaluating Voluntary Food Safety Management Systems. Web site:
<http://www.fda.gov/downloads/Food/FoodSafety/RetailFoodProtection/ManagingFoodSafetyHACCPPrinciples/Regulators/UCM078159.pdf>
- f. The Bad Bug Book. Web site:
<http://www.fda.gov/food/foodsafety/foodborneillness/foodborneillnessfoodbornepathogensnaturaltoxins/badbugbook/default.htm>
- g. U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration, FDA Food Code, with changes (most recent edition). Web site:
<http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FoodCode/default.htm>