

Kennedy NASA Procedural Requirements

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Responsible Office: Spaceport Integration and Services

KSC Sanitation and Public Health Program

National Aeronautics and
Space Administration

John F. Kennedy Space Center

Change Log

Date	Revision	Description
11/19/2013	B	<p>Preface P.5 Measurement and Verification Section added</p> <p>Chapter 1 1.1 Program Elements added references to monitoring and inspections of Child Development Center, establishing standards for monitoring of dispensed ice and soft serve dessert machines, established authority to monitor campgrounds and recreational facilities, and established referenced authority for swimming pools, bathing areas, and constructed water features. 1.2 No substantive changes 1.3 No substantive changes</p> <p>Chapter 2 2.1 No changes 2.2 Several changes establishing oversight authority to the SPHO for facilities and activities, which are subject to the provisions of this document. Included are review and approval of facility designs, operational changes in facilities that could impact safety and sanitation, temporary events where food or sanitary facilities are requested as a portion of the event celebration. 2.3-2.9 No substantive changes</p> <p>Chapter 3 3.1 No substantive changes 3.2 Added reporting requirements for Norovirus under 3.24 to be consistent with requirements of the NPR 1800.1.C and the FDA Food Code. 3.3 No substantive changes 3.4 No substantive changes 3.5 Deleted sections 3.5 through 3.9 since they were redundant with the FDA food Code and the NPR. Moved the bottled water provisions of Chapter 4.3 to Chapter 3.5. This is now consistent with how bottled water is regulated in the U.S. as a food product and not as drinking water.</p> <p>Chapter 4 Reorders the chapter to recognize that this is an environmental function with limited public health oversight. Reference is made to KNPR 8500.1 concerning standards for monitoring and regulating drinking water at KSC.</p> <p>Chapter 5 5.1–5.6 No substantive changes made 5.7 Created a new section for campgrounds and recreational facilities. Standards are now consistent with</p>

		<p>State of Florida requirements for these types of facilities as concerns sanitation and health.</p> <p>5.8 Referenced Florida Department of Children and Family standards for childcare facilities. Since this facility is currently licensed by the State of Florida, this creates no concerns or conflicts as to how they should operate.</p> <p>5.9 Established minimum standards for facilities such as barbershops, massage therapy areas and other facilities that require minimal sanitary facilities to operate in accordance with their professional licenses.</p> <p>5.10 Referenced state health requirements for water features and controlled swimming areas that do or can exist here at KSC.</p> <p>In addition to the breakdown, we offer the following information:</p> <p>The major impetus for the re-write was to bring the KNPR more in line with the 2009 FDA Food Code. Concurrently a few areas needed clarification:</p> <ol style="list-style-type: none"> 1) Better defining a “temporary food event,” e.g., an <i>official</i> or sanctioned NASA event (e.g., the All American Picnic, Atlantis Rollover, the upcoming Atlantis attraction grand opening, etc.) vs. an event sponsored by an Employee Resource Group, contractor, or Directorate. Where does our jurisdiction/responsibility start/end? FYI: NASA Legal stated that an <i>unofficial</i> NASA event falls under a “discretionary function” and therefore releases the KSC SPHO program from a mandatory food safety inspection; however, the ALL American Picnic was always treated as a “discretionary function” and was never inspected until a foodborne illness occurred. Now it is inspected every year. Temporary food events are still an area of discussion; consequently, I have managed this by assessing each event as it occurs. 2) Changing “pollution control & sanitation officer” to “sanitation & public health officer (SPHO)”; 3) The role of the KSC SPH Program with the Child Development Center, KSC-owned campgrounds (KARS I & II), as well as a few other areas; 4) “Bottled water” is covered by the FDA Food Code so it was brought under the food section; 5) “Drinking water” under the MESC is now under the InoMedic Health Applications, Inc., Environmental Sampling, Analysis, and Monitoring group and the Environmental Assurance Branch
7/19/2016	B-1	Administratively changed directorate name from Center Operations to Spaceport Integration and Services and

		Medical and Environmental Support Contract (MESC) to Kennedy Environmental and Medical Contract (KEMCON)
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PREFACE

P.1 PURPOSE

This procedure describes basic John F. Kennedy Space Center (KSC) Sanitation and Public Health Program provisions.

P.2 APPLICABILITY

a. This directive applies to all KSC personnel, facilities and activities at all permanent and temporary sites. This directive shall also apply to all KSC tenant organizations, contractors, grantees, clubs, and other persons operating under the auspices of KSC, or on KSC property, as required by law and as directed by contractual, grant, and agreement documents.

b. In this directive, all mandatory actions (i.e., requirements) are denoted by statements containing the term "shall." The terms "may" or "can" denote discretionary privilege or permission, "should" denotes a good practice and is recommended, but not required, "will" denotes expected outcome, and "are/is" denotes descriptive material.

c. In this directive, all document citations are assumed to be the latest version unless otherwise noted.

P.3 AUTHORITY

a. National Aeronautics and Space Administration (NASA) Procedural Directive (NPD) 1800.2, NASA Occupational Health Program

b. [Kennedy NASA Policy Directive \(KNPD\) 1800.1, Environmental Health Program](#)

c. [Kennedy NASA Procedural Requirements \(KNPR\) 8500.1, KSC Environmental Requirements](#)

d. [NASA Procedural Requirements \(NPR\) 1800.1C NASA Occupational Health Program](#)

e. Occupational Safety and Health Administration 1910.141, General Environmental Controls - Sanitation

P.4 APPLICABLE DOCUMENTS AND FORMS

a. NPD 9050.6, NASA Exchange and Morale Support Activities

b. NPR 1800.1, NASA Occupational Health Program Procedures

c. Florida Administrative Code (FAC) - Title 64, Department of Health

d. FAC - Title 65, Department of Children and Family Services

- e. FAC - Title 5D-1.007, Department of Agriculture and Consumer Services
- f. FAC 61G3-19, Barbershops
- g. American Council on Sports Medicine, Exercise Facilities, Chapter 8, Fourth Edition, 2012
- h. Brevard County Code of Ordinances, Part II, Ch. 14, Art. III, Div. 1
- i. [KSC Form 50-221 NS, KSC Food Establishment Design Review Application](#)
- j. United States (U.S.) Department of Health and Human Services, Public Health Service, Food and Drug Administration (FDA) - FDA Food Code
- k. Consumer Product Safety Commission Public Playground Safety Handbook

P.5 MEASUREMENT/VERIFICATION

Compliance with the requirements of this KNPR will be verified through the following means:

- a. This KNPR is used to determine compliance with applicable Federal, state, and local, health, sanitation and environmental statutes and regulations, and NASA Office of the Chief Health and Medical Officer Directives. This includes adequate, timely, and effective response to action items, findings and corrective action plans, as well as tracking repeat findings and overall trends identified during inspections.
- b. Compliance with the requirements contained in this KNPR will be verified through audits, reviews, and assessments.

P.6 CANCELLATION or SUPERSESION

This document supersedes KNPR 1870.1, Rev. B, KSC Sanitation Program.

/original signed by/

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Director, Spaceport Integration and Services

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PROCEDURES

CHAPTER 1. KSC Sanitation and Public Health Program

1.1 Program Elements

1.1.1 The KSC Sanitation and Public Health Program (hereby referred to as "Program") is a key element in the overall Environmental Health Program established by KNPD 1800.1 to protect the health and environment of all employees, public, and guests. The Program establishes a preventive approach to planning and reviewing all proposed projects, processes and procedures to eliminate, or minimize in advance, as many potential health hazards as possible.

1.1.2 The Program encompasses a spectrum of sanitation and public health concerns. Program activities include formal design and operational document reviews, periodic inspections and specialized investigations including but not limited to:

- a. Rabies exposure investigations.
- b. Animal care facility inspections.
- c. Food safety compliance inspections and food safety program reviews of dining operations at cafeterias, snack bars, food kiosks, mobile food units, vending machines, catering operations, production facilities, and temporary events.
- d. Bottled water compliance monitoring and when necessary, potable water inquiries to ensure public well-being.
- e. Response to and investigations of incidents and issues compromising the health and well-being of the KSC community, such as communicable disease, complaints, and emergencies pertaining to issues of sanitation and public health.
- f. Monitoring special events where people are gathered and temporary food operations or sanitary facilities may be provided.
- g. Disease vector surveillance.
- h. Facility sanitation including inspecting barbershops, exercise facilities, animal holding facilities, chemical toilets, recreational facilities, and campgrounds.
- i. Child care facility surveys.
- j. Bacteriological sampling and analysis of vended soft serve dessert machines, ice machines, and bottled water dispensers.
- k. Surveillance and inspection of interactive water features and bathing areas offered for recreational use to tourists, workers, their families, and guests.

1.2 Organization

The Program is one of several elements in the overall KSC Environmental Health Protection Program. The KSC Environmental Health Officer (EHO) delegates authority for this Program to the Sanitation and Public Health Officer (SPHO).

1.3 Responsibilities

1.3.1 The SPHO is responsible for implementing, evaluating, making recommendations for, and providing general surveillance over the Program to ensure compliance with regulatory and agency requirements for the control of sanitation and public health. Specific SPHO responsibilities include:

- a. Acting as the functional representative of the EHO on sanitation and public health matters and providing technical guidance to KSC organizations on related matters or concerns.
- b. Monitoring all installation food establishments for compliance with applicable local, state, Federal, and NASA specific regulations.
- c. Evaluating compliance of the Center's potable water supplies, to include chemical and bacteriological surveillance as specified in [KNPR 8500.1, KSC Environmental Requirements](#)
- d. Investigating complaints associated with sanitation and public health concerns, including but not limited to potable water, food, insects, animal bites, etc.
- e. Coordinating with outside agencies, as applicable, on sanitation and public health matters.
- f. Notify the appropriate NASA KSC organizations, e.g., Medical and Public Affairs, of any major sanitation and public health incident.

1.3.2 Organizations and Resource Groups

- a. KSC NASA Exchange, contract managers, and contract technical managers are responsible for ensuring compliance with the provisions of this requirements document on the part of civil service, contractor, Exchange and concessionaire personnel who support programs for which they have primary responsibility.
- b. This document also applies to KSC sponsored Employee Resource Groups and organizations operating or providing services at KSC.

1.3.3 The Kennedy Environmental and Medical Contract (KEMCON) provides sanitation and public health services, to the extent required by contract, and serves as the KSC SPHO designated representative. KEMCON is specifically responsible for:

- a. Ensuring all Program elements are implemented and maintained under the direction of the KSC SPHO.

- b. Providing for design and procedure reviews, technical assistance, and consultation to all KSC organizations on matters concerning the Program.
- c. Performing monitoring activities for regulatory compliance and identifying and assessing the hazard potential of real or suspected food or potable water contamination that may pose a threat to the environment or an individual's occupational health and well-being.
- d. Maintaining accurate and complete survey data records.
- e. Providing sanitation and public health support as required for operations where employees and/or guests are gathered and where temporary food or sanitary facilities may be provided.
- f. Performing onsite compliance inspections and surveys of temporary or permanent food establishments, exercise facilities, recreational areas and campgrounds, animal care facilities, bottled water, childcare facilities, potable water systems, and chemical toilets.
- g. Providing technical consultation in the preparation of Federal and state permit applications for environmental sanitation activities and maintaining copies of those applications and permits, with associated records, to ensure compliance monitoring and reporting is carried out in a timely manner.
- h. Identifying and providing technical support concerning training and certification requirements in the environmental health aspects of food establishment sanitation for all food service employees.

CHAPTER 2. General Provisions

2.1 Sanitation and Public Health Provisions

2.1.1 The following general provisions are provided to assist organizations in identifying requirements of the Program:

- a. All food served or vended for consumption shall be stored, handled, prepared, and dispensed in a manner that ensures food will be wholesome and safe.
- b. Drinking water provided for consumption shall be maintained in a potable manner. Non-potable water sources will be identified and prevented from being provided as a drinking water or bathing water source.
- c. Restroom facilities shall be provided and they will be adequately maintained in a clean, sanitary, and properly functioning manner.
- d. Insects, pests, and animals shall be controlled to prevent the creation of a health threat to people.
- e. Waste generated from Center activities shall be handled, stored, and disposed of in a manner that protects the health and well-being of people and the environment.

2.2 Constraints

2.2.1 Constraints imposed upon substances and operations subject to the provisions of this requirements document will be no less than those required by applicable regulatory authorities and will include any special additional constraints deemed necessary by the KSC SPHO. The SPHO establishes procedures to enforce the provisions described in this document:

- a. Written authorization by the SPHO is required for the operation of any facility, event, or activity determined to be subject to the provisions of this document. Such authorization shall be issued after consultation with the event or activity coordinator.
- b. The SPHO shall coordinate issuance of the authorization with other KSC officials having responsibility and jurisdiction. The authorization will not be given until those officials have concurred with the SPHO as part of their normal approval process.
- c. An authorization may be denied, suspended, or revoked by the SPHO, in coordination with the relevant officials, for a facility, event, or activity not operating in compliance with the provisions of this procedural document.
- d. No activity, facility, or event subject to the provisions of this document shall commence activities until they have received a written authorization to operate from the SPHO.
- e. Authorizations shall be issued for all existing activities, facilities, or events at KSC subject to this procedural document, and will remain valid until the conclusion of the event or activity, or until changes occur within a facility that warrants a review or modification of the operation. Examples would include a temporary food tent set up at a viewing site for a launch, or changes by a food concessionaire within a cafeteria or food court space.

2.2.2 Inspections and surveillance reports constitute the first level of noncompliance notice that is provided to an entity operating at KSC. Enforcement actions are implemented to eliminate identified hazards, reoccurring violations, and imminent health hazards. When appropriate, enforcement actions shall be coordinated with the relevant officials to gain concurrence in the implementation of a collaborative solution that addresses the root cause of the noncompliance.

- a. The SPHO or designated representative shall provide written reports of all surveillance activities to the responsible person(s) in charge (PIC) of a facility, establishment, or event documenting findings and areas of noncompliance with applicable codes and standards.
 - (1) When immediate correction is possible and necessary to reduce or eliminate a hazard, the PIC shall immediately remove or correct the hazardous condition.
 - (2) Where minor violations are identified and no immediate hazard exists to health, a followup visit may be scheduled at the facility.
- b. Failure by an individual, organization, or establishment to correct a violation may result in further action by the KSC SPHO. Action may include a conference, a letter of

warning, discontinuance of a specific activity or operation, the denial, suspension, or revocation of an authorization to operate, or removal of an entity or individual from KSC facilities.

c. Enforcement will be, when practical, progressive. Enforcement actions will be measured against the level of hazards observed, the actions by the organization(s) to control or eliminate the hazard, and the controls established and applied by the organization(s) to ensure continual compliance with standards.

d. Recurring violations and hazards are an indicator that the PIC or organization has not implemented effective controls at a facility. When recurring violations are identified and a pattern of noncompliance is established, the SPHO shall coordinate enforcement actions with NASA managers to ensure that compliance will be achieved in the future.

2.3 Records

For internal record keeping, KSC Environmental Health Protection reports and forms (Chemical Toilets, Barbershop Inspection, Child Development Center Facility Survey, Potable or Bottled Water Analysis, Environmental Health Case History and Animal Bite/Exposure Incident Report) will be utilized where available. Records, required by permit conditions, must be kept as specified by the permit. Records required by state or Federal code will be kept in accordance with the code and applicable NASA regulations. All records will be available for review by Federal, state, and local inspectors.

2.4 Exemptions

In some instances, substances, equipment, and operations subject to the provisions of this requirements document may be exempted from some or all the Program requirements. All such exemptions shall be on a case-by-case basis following review by the KSC SPHO. Written requests for exemption or deviation will be submitted for approval to the KSC SPHO prior to their initiation. Exemption determinations may be withdrawn at any time for violations of the granted waiver or other regulatory noncompliance.

2.5 Surveys and Inspections

The KSC SPHO or designee will survey and inspect various areas on a routine basis to monitor for continuing compliance with the approved procedures and controls of the Program. Where noncompliance exists, the responsible organization for that activity shall correct all discrepancies.

2.6 Modification of Facilities and Equipment

2.6.1 Any design modifications, updates, renovations, or repairs, which affect facilities or established operations as referenced in Chapter 3 or 5 in this document must be authorized by the KSC SPHO.

2.6.2 Changes to facilities and equipment that may affect an operation or establishment referenced within this document will be coordinated with the KSC SPHO, or designated representative, in advance of initiating the changes.

- a. Facility operators are responsible to provide to the KSC SPHO, or designated representative, properly prepared facility plans for review and approval concerning any proposed change to facilities, including changes to equipment.
- b. A preopening inspection must be scheduled and performed with the SPHO or designated representative prior to initiating operations in a facility.

2.6.3 The design of an establishment, including the construction and placement of equipment, shall consider issues of sanitation and health and any applicable standards that apply to a facility.

2.7 Accidents, Incidents, and Emergencies

All real or suspected accidents, incidents, or emergencies involving food or water contamination, reportable communicable disease (as defined by the U.S. Centers for Disease Control and Prevention), or animal bites shall be immediately reported to the KSC SPHO or a designated representative.

2.8 Assigned Controls

In addition to compliance with applicable Federal, state, and local regulations, the KSC SPHO, as a result of unique or operational characteristics, may assign additional requirements and controls.

CHAPTER 3. Food Establishment Sanitation

3.1 General

This chapter outlines the basic requirements and procedures to prevent outbreaks of foodborne illness, thereby assuring all food served or vended at KSC is safe, unadulterated, and honestly presented. This chapter applies to transporting, storing, preparing, serving, and vending of food at KSC. It applies to all food activities held on KSC which are open to employees and their guests or activities where food is available for purchase. In general, the provisions and guidelines prescribed herein require adherence to provisions specified in NPR 1800.1, Chapter 4 and in the U.S. Department of Health and Human Services, the most current FDA Food Code and applicable regulations of the State of Florida.

3.2 Responsibilities and Organizational Functions

3.2.1 The KSC SPHO or designated representative shall:

- a. Conduct a continuing program of inspection and surveillance in all areas where food is stored, prepared, served, transported, vended, or consumed. Such inspections are performed under the guidelines established by this requirements document and the FDA Food Code.
- b. Cause the removal from service or termination of sale of all food items suspected to be contaminated, unwholesome, or otherwise deemed unfit for consumption.

- c. Review properly prepared facility design packages that include proposed menu, equipment specifications, and equipment layout for any food facility to be newly constructed, remodeled, or reopened.
- d. Review plans for temporary events and provide recommendations concerning food safety and sanitation.
- e. Conduct periodic reviews and meetings with food providers regarding maintenance and necessary revisions to their Hazard Analysis and Critical Control Point (HACCP) or food safety management plans.
- f. Conduct periodic specialized sampling as follows:
 - (1) Equipment that is used to store and dispense ready to eat food products, e.g., ice and frozen dessert products shall be maintained per manufacturers recommendations. Dispensed products are subject to periodic sampling for compliance with bacteriological standards.
 - (2) Dispensed ice laboratory tests shall be tested for the presence or absence of coliform organisms in the product. If unsatisfactory lab results are revealed, the dispensing equipment will be removed from service, cleaned, sanitized, and not returned to use until satisfactory laboratory results can be obtained.

3.2.2 Unless prior arrangements have been made with the SPHO or designated representative, all food vendors on Center, whether permanent or temporary, and organizations receiving, storing, preparing, transporting, or serving food shall be responsible for the following:

- a. Maintain food, facilities and equipment in a clean, safe, and sanitary condition.
- b. Ensure all areas under their control meet or exceed:
 - (1) The minimum acceptable requirements established by the most current FDA Food Code,
 - (2) The requirements authorized by NASA and KSC directives, including this requirements document and,
 - (3) Any other applicable state or Federal requirements.
- c. Develop, implement, and validate a food safety plan, which applies HACCP principles, and which includes a program of self-inspection and sustained active managerial control. The food safety plan shall be kept current, identify potential hazards of significance, and include preventive measures to ensure or improve food safety.
- d. Provide training and maintain certification requirements for all food service managers and food service employees as specified by the most current FDA Food Code and NASA requirements.
 - (1) PIC of a food establishment must be a food protection manager certified by a food protection manager certification program evaluated and listed by a Conference for Food

Protection recognized accrediting agency as conforming to the Conference for Food Protection Standards for Accreditation of Food Protection Manager Certification Programs in compliance with 2-102.11(B) of the FDA Food Code.

(2) Food workers shall receive training regarding their duties and responsibilities, under the concessionaire's approved HACCP plan; their obligation to report illnesses of significance as related to foodborne disease, to maintain awareness of food allergens and, at a minimum, annually review all of these responsibilities with their managers. Such training will be required as part of the employee's pre-service orientation.

(3) Food operators shall maintain detailed records for all employees as to any training that they have received and completed each year. Such records will be available for review by the KSC SPHO upon request.

e. Maintain and post in a conspicuous public location the most recent copy of the KSC Food Establishment Inspection Report.

f. Ensure all food handlers report to the Occupational Health Facility (OHF) when any symptoms of infections or communicable disease are present and report to the OHF for clearance prior to returning to work.

3.2.3 Emergency Preparedness and Notification

a. The Food operators shall prepare and maintain an Emergency Preparedness Plan. The plan should be a part of the overall food safety plan, and will consider events that could occur due to inclement weather, fire, flood, power outage, gas leak, water outage, or similar event which could cause the contamination of food, or that might result in food being held at unsafe temperatures, under unsanitary conditions, or which could potentially hinder or compromise safe food operations.

b. The plan shall be submitted to the SPHO, or designated representative, for evaluation prior to implementation.

c. In the event of an emergency as described above, the food operator shall immediately notify the KSC SPHO or designated representative.

3.2.4 Temporary Food Events

A food operator or event sponsor or coordinator shall provide the KSC SPHO, or designated representative, advanced notice of any catering event or temporary food operation authorized by NASA where employees and/or guests will be served.

3.2.5 Individuals and organizations operating vending machines that dispense food or beverages shall:

a. Provide to the KSC SPHO, or designated representative, a list of vending machines and their locations.

b. Ensure that all areas under their control, which includes storage, transport, and vending, meet or exceed the minimum acceptable requirements of this requirements document and the FDA Food Code.

- c. Ensure that foods are properly labeled and are removed from the vending machines prior to expiration date.
- d. Establish and maintain a vending machine cleaning schedule and a method of cleaning approved by the KSC SPHO.

3.3 Changes to Operations, Equipment, or Facility Designs

3.3.1 The design of a food establishment, including the construction and placement of equipment, shall meet the principles outlined in the FDA Food Code and any other applicable state or Federal requirement.

3.3.2 Changes within a food establishment, including changes in facility design, food equipment, food operator, or menu items shall be submitted to the SPHO, or designated representative, prior to implementation. Changes will be in accordance with provisions as set forth in Section 2.6 of this document. [KSC Form 50-221 NS, KSC Food Establishment Design Review Application](#) must be submitted for review along with any necessary engineering or vendor-specific plans.

3.3.3 The food operator shall maintain open communications and inform the KSC SPHO on changes to the establishment's HACCP plan, Food Safety Plan, or Emergency Response Plan. The SPHO or designated representative must receive changes to the Standard Operating Procedures no later than 90 days after the update.

3.4 Inspections

The KSC SPHO or designated representative shall perform periodic and special inspections of all food establishments and vending operations to ensure compliance with applicable regulatory requirements and the provisions of this requirements document. These inspections will occur anytime during operational hours and to the extent possible, minimize any impact on sales and services. These inspections may include sampling of food products dispensed from food production equipment to ascertain the efficacy of cleaning and maintenance activities, e.g., soft serve ice cream.

3.5 Bottled Water

Bottled water, procured under KSC contract, may be authorized on a case by case basis for use at sites on Center and at NASA facilities on Cape Canaveral Air Force Station where plumbed potable water is not available. Only bottled water procured under KSC contract shall be placed in bottled water dispensers supplied under the KSC contract. Under no circumstances will empty bottles be refilled by anyone other than the processor. Standards for bottled water are outlined in Florida Statutes and FAC. All organizations procuring bottled water under KSC contract will ensure:

- a. Dispensers are provided and bottles of water are stored in areas free of general hazards or contamination of any kind (e.g., noise, chemicals, gases, etc.) that pose a threat to users under normal operations.
- b. Subcontractors who furnish bottled water maintain and provide upon request 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. The bottled water subcontractor provides three bottles of water randomly selected from the shipment, to the SPHO or designated representative, once a month for bacteriological analysis of the delivered bottled water; analysis shall be done for the presence or absence of coliform organisms.
- f. The bottled water subcontractor recalls suspect bottled water lots or shall take other appropriate action when notified by the SPHO of contamination detection.

CHAPTER 4. Surveillance of Potable Water

4.1 General

This chapter contains requirements to ensure all KSC potable water supplies comply with Federal, state, and local regulations.

4.2 Organizational Functions

The KSC SPHO shall maintain a continuing surveillance of all potable water operations at KSC including sampling and providing for bacteriological and chemical analysis of all potable water supplies for compliance with NASA, Federal, state, and local drinking water standards as specified in [KNPR 8500.1, KSC Environmental Requirements](#). The organizations responsible for the operation and maintenance of the KSC potable water system will ensure compliance with the provisions of this document and applicable Federal, state, and local regulations.

CHAPTER 5. Facility Sanitation

5.1 General

This chapter identifies the basic provisions for the maintenance, inspection, and monitoring of sanitary conditions in the work place.

5.2 Organizational Functions

5.2.1 The KSC SPHO or designated representative shall conduct surveillance of sanitary conditions at KSC or facilities under control of KSC, including facilities that house animals. The KSC SPHO or designated representative will report results to appropriate facility managers and verify corrective action has been taken.

5.2.2 The organizations responsible for the operation and maintenance of facilities shall ensure compliance with this document and applicable Federal, state, and local regulations.

5.3 Sanitary Conditions in the Work Place

5.3.1 Workplaces shall be kept clean and free from recognized threats to health.

5.3.2 Pests shall be controlled to the greatest extent possible using preventive pest control measures. However, pest control measures will be employed in a manner that does not endanger personnel or the environment.

5.3.3 Pesticides, when used, shall be limited to those offering the least possible harm to persons and the environment while still accomplishing the desired goal.

5.3.4 The organization responsible shall inform the SPHO of all new pesticides used at the KSC Child Development Center, kitchens, and cafeterias.

5.4 Toilet Facilities

An adequate number of toilet facilities are provided in the workplace to ensure compliance with regulatory requirements. Where temporary or chemical toilet facilities must be provided, hand washing facilities shall be provided.

5.5 Sanitary Conditions in Exercise Facilities

5.5.1 Exercise facilities shall be maintained in a sanitary manner and facility managers will correct all unsanitary conditions reported to them.

5.5.2 Standards as established by the American Council on Sports Medicine, Exercise Facilities, Chapter 8, Fourth Edition, 2012, shall be applicable for the design, operation, and maintenance of exercise facilities at KSC.

5.5.3 Facilities shall be inspected by the SPHO, or the designated representative, as often as necessary to ensure that sanitation and public health standards are maintained.

5.6 Facilities Housing Animals

5.6.1 The KSC SPHO or designated representative shall inspect facilities that house animals on a quarterly basis and report the results to the facility manager.

5.6.2 Managers of facilities housing animals shall maintain the premises in a sanitary manner and correct all unsanitary conditions reported to them.

5.6.3 Managers of facilities that house animals shall ensure the protection, safety, and welfare of animals entrusted to them and ensure:

- a. All animals are adequately fed on a daily basis.
- b. Fresh water is available to all animals at all times.
- c. Animal enclosures are of sizes appropriate to the size of the animal held so the animal may freely stand, normally erect, and have enough floor space to turn around without obstruction.
- d. All animal feces and other wastes are removed from the animal enclosure area on a daily basis and disposed of in an approved sewage system.

e. A program exists for the effective control of insects, vermin, and parasites within the animal enclosure.

5.7 Campgrounds and Recreational Facilities

5.7.1 Camping facilities for tents and recreational vehicles shall be maintained in accordance with applicable requirements set forth in Chapter 513 of the Florida Statutes as well as Chapter 64E-15 of the FAC.

5.7.2 Campgrounds and associated recreational facilities operated on behalf of the employees and their families at KSC, including KARS Park I and II, shall be maintained and operated in a safe and sanitary manner.

5.7.3 Playground facilities shall be of sound construction and maintained in good repair. Standards for play equipment, at a minimum, will meet Consumer Product Safety Commission standards for playgrounds as set forth in their Public Playground Safety Handbook.

5.7.4 Facilities shall be periodically inspected by the SPHO or the designated representative, and when required, in collaboration with the relevant officials to ensure that sanitation and public health standards are maintained.

5.8 The KSC Child Development Center

The KSC Child Development Center serves a population of children. Children are highly susceptible to illness and disease transmission. For this reason, sanitation standards are critical for maintaining a healthful environment. The following provisions are applicable for operation of the facility:

- a. Health and medical related child care standards, as established by the State of Florida Department of Children and Families, shall be maintained at all times in the facility.
- b. Food safety and sanitation standards as set forth in Chapter 3 of this document shall be applicable to any food served in the facility.
- c. The SPHO or the designated representative shall conduct periodic announced and unannounced surveillance visits at the facility to ensure that minimum standards are maintained. Reports of these surveillance visits will be provided on applicable KSC report forms.

5.9 Other KSC Facilities

5.9.1 Other facilities operated for the benefit of employees and available for public access (such as barbershops, sundry stores, and gift shops) shall be maintained in a sanitary condition for workers and guests.

5.9.2 Facilities offering services provided by regulated professions shall be designed and operated so that the licensed professional can provide their services in a safe and sanitary manner.

5.9.3 The SPHO or designated representative may conduct periodic surveillance of these facilities, including any supporting storage and staging facilities, to ensure that standards of health and sanitation are met.

5.10 Bathing Areas and Interactive Water Features

5.10.1 Facilities offered for use to tourists, employees, their families, and guests must be constructed and maintained in accordance with minimum standards for health, sanitation, and operation as specified in Chapter 64-E9, FAC.

5.10.2 The SPHO or designated representative may conduct periodic surveillance of these facilities to ensure that standards of health and sanitation are being met.

Appendix A. Program Definitions

Animal Care Facility - Any place dogs, cats, or other animals regardless of numbers, are kept for boarding.

Design Review - A review of properly prepared facility plans to include food service facilities, water system construction or modifications, and sanitary facilities for buildings.

Disinfection - A process that destroys or irreversibly inactivates the vegetative cells of infectious microorganisms.

Food Contact Surface - Those surfaces of equipment and utensils which food normally comes in contact with and those surfaces upon which food may drain, drip or splash.

Food Manager Certification - A written certification test that requires food managers to demonstrate a basic knowledge of food protection practices.

Hazard Analysis Critical Control Point (HACCP) - A prevention based food safety system. HACCP systems are designed to prevent the occurrence of potential food safety problems. This is achieved by assessing the inherent risks attributable to a product or process and then determining the steps necessary to control the identified risks.

HACCP Plan - A written document developed by The National Advisory Committee on Microbiological Criteria for Foods that delineates the formal procedures for following HACCP principles.

Imminent Health Hazard - A significant threat or danger to health considered to exist when there is sufficient evidence to show a product, practice, circumstance, or event creates a situation requiring immediate correction or cessation of operation to prevent injury based on the number of potential injuries and the nature, severity, and duration of the anticipated injury.

Interactive Water Feature - A structure designed to allow for recreational activities with re-circulated, filtered, and treated water; but having minimal standing water.

Labeling - Sources of packaged food must be labeled in accordance with FAC and the FDA Food Code. Proper labeling includes manufacturer's name and accurate contents statement.

Leftovers - Food items left over either from the serving line, prepared for service, placed in a hot or cold holding facility pending service, or not served and returned to a refrigerated unit for use at another time. This differs from food items prepared in advance for service at another time.

Permit - The legal authorization to engage in or conduct any construction, operation, modification, or expansion of any installation, structure, equipment, facility, or appurtenance thereto, the operation or activity of which will reasonably be expected to be a source of pollution.

Person in charge - The individual, present at an establishment, responsible for the operation at the time of inspection.

Potentially Hazardous Food - A natural or synthetic food requiring temperature control because it is in a form capable of supporting rapid or progressive growth of infectious or toxigenic microorganisms.

Primary Drinking Water Standard - Maximum contaminant levels for specific inorganic contaminants, volatile organic chemicals, and radioactive materials as well as limits for turbidity and coliform organisms in drinking water are analyzed per FAC, Chapter 62-550, Drinking Water Standards, Monitoring and Reporting.

Regulated Professionals - A practitioner whose services are normally provided from a fixed location dependent upon associated sanitary facilities, and professionally licensed by the State of Florida. Examples include barbers, massage therapists, physical therapists, physicians, and nurses.

Sanitize - The effective bactericidal treatment of clean equipment and utensil surfaces by an approved process providing enough accumulated heat or chemical concentration for enough time to reduce the bacterial count, including pathogens, to a safe level.

Secondary Drinking Water Standard - Guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) related to customer's acceptance of the drinking water.

Temporary event - Any interim NASA-approved event or activity in which food is provided for sale; all other events involving the availability of food are at the discretion of the SPHO.

Vector - A carrier organism is capable of transmitting a pathogen from one organism to another.

Vending machine - A self-service device that, upon insertion of a coin, paper currency, token, card, or key, or by optional manual operation, dispenses unit servings of food in bulk or in packages without the necessity of replenishing the device between each vending operation.

Vermin - Any of various small animals or insects that are destructive, annoying, or injurious to human health, plants, or animals in the environment.

Water Quality Parameters - The specific chemicals monitored to ensure compliance with the primary and secondary drinking water standards.

Appendix B. Acronyms

EHO	Environmental Health Officer
FAC	Florida Administrative Code
FDA	Food and Drug Administration
HACCP	Hazard Analysis and Critical Control Point
KEMCON	Kennedy Environmental and Medical Contract
KNPD	Kennedy NASA Policy Directive
KNPR	Kennedy NASA Procedural Requirements
KSC	Kennedy Space Center
NASA	National Aeronautics and Space Administration
NPD	NASA Policy Directive
NPR	NASA Procedural Requirements
OHF	Occupational Health Facility
PIC	Person(s) In Charge
SPHO	Sanitation and Public Health Officer
U.S.	United States