

PREREQUISITE PROCESSES (SSOP / GMP)

Personal Hygiene

EMPLOYEE PERSONAL HYGIENE POLICIES

Employees shall be responsible for using safe food handling methods as trained and instructed, and for practicing good personal hygiene. The following are the policies for every employee to follow to eliminate foodborne illness and injury, and to achieve certainty in customer satisfaction.

Individual illness and disease control. Any person who, by medical examination or supervisory observation, is shown to have, or appears to have, an illness, open lesions (boils, sores, infected wounds) or any abnormal source of microbial contamination that could contaminate food, food contact surfaces, or food packaging materials shall not be allowed to work with these items.

If an employee's illness is not severe and symptoms are not acute, the employee can be assigned to tasks that do not involve food handling or can be excused from work altogether until he/she is completely well. Illness must not be passed on to customers or other employees.

Employees, notify your supervisor / PIC if you are ill with diarrhea, vomiting, or other illness so that you can either be assigned to tasks that do not involve food handling, or excused from work altogether.

When employees are hired, they will be taught to tell the supervisor / PIC if they have:

1. Diarrhea or vomiting.
2. *Salmonella*, *Shigella*, *E. coli* O157:H7, hepatitis A, or other intestinal illness (diagnosed by a doctor).
3. Open, blistered, or infected burns, boils, cuts, etc. on the hands or forearms.
4. Burns, wounds, or boils on the hands or forearms that are open, blistered, or have pus.
5. Jaundice (yellowing of the skin or eyeballs).

What to do when an employee has:

1. Diarrhea or vomiting.
 - a. Do not allow employees to work until they are well.
 - b. Keep a written record of all employee reports of diarrhea and vomiting. A sample log page is included in this manual.
2. Hepatitis A. *Salmonella*, *Shigella*, *E. coli* O157:H7, other intestinal illness.
 - a. Call your local health department to report the illness.
 - b. Do not allow employees with diarrhea or vomiting to work until they are well.
 - c. Employees without diarrhea or vomiting can work, but not with food or food-contact surfaces (clean equipment, utensils, linens, and single-service and single-use items).
3. Open, blistered, or infected burns, boils, cuts, etc. on the hands or forearms.
 - a. Supply the employee with a waterproof bandage to apply to the boil or wound.
 - b. Supply gloves, which must be worn if the boil or wound is on the hand or wrist.

4. Persistent sneezing, coughing, or a runny nose: People with these symptoms can work, but should not work with food.

Cuts and abrasions. Clean all cuts and abrasions using soap and disinfectant, water, and a brush. There is no need to put a glove on the other hand if it has no problems. When the uncovered hand gets dirty, it will be a signal to the worker to change gloves and continue to wash his or her hands. Bacteria will grow on the warm, moist skin under the glove, so take the glove off, wash hands and put on a fresh glove frequently. Never handle food with an infected cut or abrasion. (See also FIRST AID in this section.)

Personal cleanliness

1. Maintain adequate personal cleanliness by bathing daily and using a deodorant to control body odor. Use only mild perfumes or colognes that do not interfere with the aroma of food. Keep hands free of foreign perfume odors.
2. Wear clean uniforms and closed-toed shoes. Replace clothing if it becomes dirty while working.
3. Store clothing and personal belongings away from food production or equipment / utensils washing areas.

Fingernails. Keep fingernails neatly trimmed. Fingernails should not protrude past the ends of the fingertips more than 1/16" in length to make them easier to clean. Do not use fingernail polish or artificial fingernails while working, because they might flake or fall off into a customer's food.

Hair restraint. Restrain or cover your hair at all times (e.g., hairnets, headbands, caps, beard covers). The covering or restraint must ensure that no hair will fall into the customer's food. Employees with mustaches and beards keep facial hair clean, neat, and trimmed. Mustaches cannot extend below the lip. Beards must be kept closely trimmed to no more than 1/2 inch. A beard net must be worn at all times in the processing area.

Jewelry and hard objects in pockets. Do not wear jewelry on the hands, wrist, neck, or ears. Do not carry hard objects in your outside pockets. Plain wedding bands are acceptable but not recommended.

Handkerchiefs and facial tissues. Never carry a handkerchief or facial tissue when working with food. If you must use a tissue, use it at the hand sink, then immediately wash your hands at the hand sink. If you sneeze, direct it toward your shoulder and away from foods.

Chewing gum, smoking, and eating. Do not chew gum when working with food. Never smoke in the food production area. Never eat or drink while handling foods. Food and beverages are only consumed in the employee break room.

GLOVES

How to use gloves

1. Cover cuts, scrapes, burns, etc. on the hands with a bandage AND a glove or fingercot.
2. Wash your hands before using gloves.
3. Wash your hands after using gloves.
4. Change gloves when you switch tasks.

5. Discard gloves when you leave the work area.
6. REMEMBER: Gloves can spread germs just as easily as hands can!

Disposable gloves. When employees wear disposable plastic gloves for preparing / producing and packaging food, they will:

1. Wash their hands both before putting gloves on and after gloves are removed.
2. Change gloves when there is any possibility of cross-contamination.

Note: Employees shall not wear latex gloves when preparing / producing food due to transfer of latex allergens to food.

Heavy-duty gloves. Some employees will need to wear heavy-duty, non-disposable gloves to protect their hands from harsh chemicals (e.g., personnel who wash pots and pans with strong detergent solutions). These employees shall be given their own personal gloves that will not be shared with any other person, in order to prevent skin cross-infection(s). Employees should wash their hands before putting on these gloves and after removing them.

HAND WASHING

Employee hand washing policies

1. Get hands ready.
 - a. Remove rings except for plain wedding bands. Rings interfere with good hand washing technique and provide a home for bacteria to hide and grow.
 - b. Bracelets are also a hazard.
 - c. Fingernails need to be trimmed, filed, free of polish, and clean (both over and under).
 - d. Long, glue-on nails are a hazard. They can fall off and end up in the food, and are also a place for bacteria to live.
2. When to wash: the big three.
 - a. Before starting work.
 - b. After using the toilet.
 - c. After touching raw meat.

Double hand wash. Mandatory times for the **double hand wash** at the hand wash station:

- Upon entering the department.
- After using the toilet.

The **double wash method** requires a fingernail brush. The procedure is as follows:

FIRST WASH:

1. Turn on warm water at 2 gallons per minute, 75 to 110°F.
2. Apply plain hand soap / detergent to brush.
3. With water flowing, work up a good lather on the fingernails using the brush.
4. With water flowing over fingers, rinse hands and brush; put brush down to dry.

SECOND WASH:

5. Apply soap to the hands.
6. Soap, lather, and scrub without the fingernail brush, as far up the arms as you will put into the food.
7. Rinse a second time.
8. Dry hands with a single use, disposable towel.

Single hand wash. Times to use the **single hand wash** (steps 5 through 8 of the above procedure) without the fingernail brush:

- Between handling raw and cooked foods, especially raw chicken and raw hamburger.
- After covering coughs and sneezes or blowing your nose.
- After handling dirty boxes.
- Whenever you feel that your hands are dirty.
- After touching your skin, hair, beard, or soiled apron.
- After handling garbage.
- After handling dirty dishes.

MEDICINES

Employees' personal medicines should be stored _____ . In case an employee must take personal medicine immediately but is unable to self-administer, _____ .

FIRST AID

First aid materials shall be stored so that these materials cannot contaminate food. First aid supplies shall be checked weekly by the PICs and shall be replenished.

Hand cuts and abrasions. Employees will inform supervisors of cuts and abrasions on the hands and any other skin abrasions on exposed areas of the body. Employees shall not work with any uncovered, ungloned infected cut or abrasion on the hands. Cuts and abrasions that are not severely infected and do not interfere with an employee's ability to perform tasks shall be cleaned, disinfected, bandaged, and covered with a clean, waterproof covering (e.g. a clean, plastic glove) at the entrance to the plant. After putting on glove, wash your ungloned hand. You will need to use your gloved hand in the process of doing this.

Contact with blood or body fluids from another person.

Before any personnel touch the blood (e.g., if bandaging the wound of another individual) or any other body fluid such as vomitus of another person, they shall put on properly fitting, disposable gloves that will prevent the body fluid from entering any cuts or breaks in the skin of their own hands.

Facility and Equipment Cleaning, Sanitation, and Pest Control

SUBSTANCES USED IN CLEANING AND SANITIZING; STORAGE OF TOXIC MATERIALS

1. Cleaning compounds and sanitizing agents used in cleaning and sanitizing procedures shall be free from undesirable microorganisms.
2. Cleaning compounds and sanitizing agents shall be safe and adequate, as verified by any effective means, including purchase under a supplier's guarantee or certification, or examination for contamination.
3. Sanitizing agents shall be adequate and safe under conditions of use
4. Only the following toxic materials shall be used or stored in a plant where food is processed or exposed:
 - a. Those required to maintain clean and sanitary conditions.
 - b. Those needed for used in laboratory testing procedures.
 - c. Those needed for plant and equipment maintenance and operation.
 - d. Those needed for use in plant operations.
5. Toxic cleaning compounds, sanitizing agents, and pesticide chemicals shall be identified, held, and stored so as to protect against contamination of food, food contact surfaces, or food packaging materials. These materials shall be stored in locked and labeled facilities away from production or food handling areas.

CLEANING AND SANITATION GMPs

1. **Preoperational sanitation.** All equipment will be cleaned and sanitized prior to starting production. Sanitizer concentration must be measured and documented at least once daily. If sanitizer buckets are used for wipes or utensils, the concentration must be checked and recorded at least every 4 hours during production.

There will be a daily sanitation inspection of production lines before operations begin. This will be recorded on the **Cleaning and Sanitizing Schedule and Pre-Operations Report**, Encl. B1.
2. **Cleaning and sanitizing of utensils and equipment** shall be conducted so as to protect against contamination of food, food contact surfaces, or food packaging materials. Food contact surfaces will be cleaned following contact with allergen-containing foods. If high temperature sanitization is used instead of chemical sanitization, water temperatures must be measured and recorded for each cleaning cycle.
 - a. A written cleaning and sanitation program for all equipment and premises (production and storage areas) will be followed. (See **Cleaning and Sanitizing Schedule and Pre-Operations Report**, Encl. B1.) The program includes: the name of the responsible person; the frequency of the activity; the procedures for cleaning and sanitizing; the chemicals and concentrations used; the temperature requirements; and the type and frequency of inspection to verify the effectiveness of the program.

- b. Sanitary procedures for cleaning and sanitizing equipment are used.
 - 1) The equipment is disassembled. Parts are placed in designated washing tubs, racks, sinks.
 - 2) Product debris is removed.
 - 3) Equipment parts are rinsed with potable water
 - 4) Equipment is sanitized with approved sanitizer, and rinsed with potable water if required.
 - 5) Equipment is reassembled. (See **Sanitation Procedures and Standards**, Encl. B2.)
 - c. Chemicals will be used in accordance with the manufacturer's instructions.
 - d. The sanitation program will be carried out in a manner that does not contaminate food or packaging materials during or following cleaning and sanitizing (e.g. aerosols, chemical residues).
 - e. Implementing, monitoring, and record keeping. The QC manager performs daily visual sanitation inspection after preoperational equipment cleaning and sanitizing. The results of the inspection are recorded on the **Cleaning and Sanitizing Schedule and Pre-Operations Report**, Encl. B1. If everything is acceptable, the appropriate box is initialed. If corrective actions are needed, such actions are documented on the report. NOTE: Operations will begin only after sanitation requirements are met.
 - f. Corrective action must be taken, based on visual inspection of equipment and premises. Evidence of improper cleaning is, but not limited to: food particles, grease build-up (either yellow gummy or carbon), soap or water residue on surfaces, mold, dust, oxidation of metals. The Quality Control (QC) person will mark type and area of concern on the checklist. This information will then be given to the person assigned to clean. Once the cleaning is completed, the QC person will re-inspect and make notation on the **Cleaning and Sanitizing Schedule and Pre-Operations Report**, Encl. B1, of time cleaning was completed.
3. **Sanitation of food contact surfaces.** Cleaning and sanitizing of utensils and equipment shall be conducted so as to protect against contamination of food, food contact surfaces, or food packaging materials.
 - a. All food contact surfaces, including utensils and food contact surfaces of equipment, will be cleaned and sanitized as frequently as necessary to protect against contamination of food.
 - b. Food contact surfaces used for manufacturing or **Cleaning and Sanitizing Schedule and Pre-Operations Report**, Encl. B1. holding low-moisture food shall be in a dry, sanitary condition at the time of use.
 - c. When surfaces are wet-cleaned, they shall, when necessary, be sanitized and thoroughly dried before subsequent use.
 - d. Cleaning in wet processing: When cleaning is necessary to protect against introduction of microorganisms, all food contact surfaces shall be cleaned and sanitized before use and after any interruption during which the food contact surfaces may have become contaminated. Written procedures are in place for pre-operational inspection, cleaning

- during a production shift and post operational cleaning.
- e. Cleaning during continuous production: Where equipment and utensils are used in a continuous production operation, the utensils and equipment food contact surfaces shall be cleaned and sanitized as necessary.
 - f. Non-food-contact surfaces of equipment will be cleaned as frequently as necessary to protect against contamination of food.
 - g. Any facility, procedure, or machine shall be acceptable for cleaning and sanitizing equipment and utensils if it is established that the facility, procedure, or machine routinely render equipment and utensils clean and provide an adequate cleaning and sanitizing treatment.
 - h. Employees take appropriate precautions when going from a raw product area to a cooked product area, to prevent cross contamination of cooked products. Employees change outer garments, wash hands and sanitize hands with an approved hand sanitizer (sanitizer is equivalent to 50 ppm chlorine), put on clean gloves and step into a boot sanitizing bath on leaving and entering the respective rooms.
 - i. Raw and cooked processing areas are separate. There is no cross utilization of equipment between raw and cooked products.
 - j. Outer garments such as aprons, smocks and gloves are identified and designated specifically for either the raw processing rooms (area) or the cooked processing rooms (area). One color is designated for raw processing rooms and another for cooked processing rooms. The outer garments are maintained in a clean and sanitary manner and are changed at least daily, and if necessary, more often.
 - k. Corrective action. When the QC manager identifies sanitation problem(s) during production, the Processing Manager is notified and production is stopped. Employees are notified to take appropriate action to correct the sanitation problem(s). Employees are retrained, if necessary. Corrective actions are recorded on the **Corrective Action Report**. (See Encl. B12 in *MANAGEMENT / QA, QC, AND HACCP TEAM* section.)
4. **Frequency of cleaning**
- a. Clean-ups of belting for cooked product, stainless work tables, cutting tables, and floors in preparation room(s) should done once every 4 hours, as well as at the end of the production day.
 - b. Smaller utensils and equipment such as measurers, spatulas, bowls, lexan pans, hotel pans, and sheet trays should be cleaned after each use, in the 3-compartment sink wash-rinse-sanitize or in a utensil washing machine. Scales, steamers, racks for trays, and garbage cans should be cleaned on a daily basis at the completion of production shifts, or more often if necessary.
5. **Storage of cleaned and sanitized portable equipment** with food contact surfaces and utensils shall be stored in a location and manner that protects food contact surfaces from contamination.
 - a. All equipment that has not be used, washed, and sanitized within the previous 24 hours will be re-washed and sanitized prior to placing into service.
 - b. Before these pieces are placed back into circulation, QC will re-inspect.
 6. **Cleaning of facilities** (includes floors, walls, and ceilings)
 - a. Separate cleaning equipment will be used for cleaning floors and walls and for equipment cleaning. All cleaning tools will be washed, rinsed, and sanitized, to include hoses, which are no more than 45 feet long.
 - b. Cleaning procedure
 - 1) Debris is swept up and discarded.
 - 2) Facilities are rinsed with potable water.
 - 3) Facilities are cleaned with an approved cleaner, according to manufacturer's directions.
 - 4) Facilities are rinsed with potable water.
 - c. Cleaning frequency
 - 1) Floors and walls are cleaned at the end of each production day.
 - 2) Ceilings are cleaned as needed, but at least once a year.
 - d. Monitoring. The QC manager performs daily visual inspection prior to the start of operations.
 - e. Corrective action(s). When the QC manager determines that the facilities do not pass visual inspection, the cleaning procedure and re-inspection are repeated. The cleaning of facilities is monitored and sanitation crew is retrained if necessary. Corrective actions to prevent direct product contamination or adulteration are recorded.
 7. **Chemicals list and Material Safety Data Sheets.** Detailed information about all chemicals used in cleaning and sanitizing must be maintained on file for easy access by employees (Encl. B3). This form is also used for pest control chemicals.

PEST CONTROL GMPs

1. There is removal of litter, waste, and cutting grass and weeds within the immediate vicinity of the buildings / structures to prevent breeding / harborage of pests.
2. There is inspection of the plant and extermination or other means to exclude pests, dirt, and filth that could contaminate food if neighboring grounds are not under the operator's control, and are not maintained as above.
3. No pets shall be allowed in any area of the food plant. Guard or guide dogs shall only be allowed in some areas where the presence of the dogs is unlikely to contaminate food, food contact surfaces, or food packaging materials.
4. Effective measures to exclude pests from processing areas and to protect against food contamination on the premises shall be taken.
5. Use of insecticides or rodenticides shall be used as defined by law and permitted only under precautions and restrictions that will protect against contamination of food, food contact surfaces, and food packaging materials.
6. Documentation as part of a pest control program shall be maintained.

PEST CONTROL PROGRAM

1. A systematic pest control program is essential to prevent adulteration. If the facility is dirty no amount of pest control chemicals will prevent or stop insect and rodent infestation. The **Pest Control Schedule and Report** is shown in Encl. B4.
 - a. The entire production facility is inspected regularly for any evidence of pests.
 - b. Storage areas are kept clean and free of debris and spilled food, which serve as a breeding area for pests.
 - c. Doors, windows, screens, walls, and floors are clean and well maintained so that pests cannot find a way into the establishment.
2. The use of properly cleaned and sanitized insect- and rodent-proof, covered trash containers discourages pest breeding. Floor drains are properly trapped to prevent insect and rodent entry.
3. All food items will be kept in closed, labeled containers and carefully inspected as received for evidence of pests before they are stored. Fresh ingredients are not added to old ingredients. For example, if flour from the bottom of the container of flour in dry storage contains flour beetles, a new supply of flour will become contaminated with beetles, if it is added to the old supply of flour.
4. If pests are discovered, immediate steps are taken to eliminate them.
5. HACCP requires verification by a supervisor or higher-level person that service provided by a pest control company was performed fully. This is done when the HACCP team does a monthly inspection of the facility.
6. Pest control reports are normally kept for six months.
7. Material Safety Data Sheets are kept and available for all pesticides used on the premises.
8. If traps are used to trap rodents, a **Floor Plan** must be made that indicates the location of these devices and the type of bait in each trap. (See Encl. B5.)
9. Pesticides must be used correctly. Any commercial chemicals used for pest control are toxic when not used correctly. A pest control chemical list will be maintained (Encl. B3).
10. All food supplies must be placed in covered containers or removed from the area during pesticide application. All food contact surfaces must be covered or washed, rinsed, and sanitized after pesticide application.
11. Gaps around doors must be 1/4 inch or less.
12. All vendors must operate an effective pest control program. Service for outdoor poison bait must be monthly (licensed PCO only) and twice monthly for indoor rodent catch traps. Fly lights must be inspected and cleaned weekly.
13. Records must include a current business license from the pest control company, a certificate of liability insurance from pest control company, service records that specify the date of service, the nature of the service, and any observations or corrective actions that are necessary, an activity log for all devices, and a current device map with numbered locations and a legend that includes mechanical rodent traps, toxic bait stations, and insect lights. All toxic bait stations must be anchored to the ground and tamper proof.
14. A. chemical application log must be kept by the pest control service technician, and MSDS for all chemicals, including pesticides, toxic bait, glue boards, etc., must be kept on file.
15. All outdoor toxic bait stations must be anchored to the ground, tamper resistant, numbered, and located at least every 50 linear feet around the building.
16. Indoor mechanical crawling pest devices must be numbered and located every 25 to 30 linear feet, along all indoor food storage areas.
17. Fly traps are placed as necessary, but not in direct view from outdoors so they do not attract pests from outdoors. Explosive devices must not be located in food production areas and must be at least 20 feet from stored food or packaging. Non-explosive fly lights should not be located above exposed food, but can be located within 10 feet.

CLEANING AND SANITIZING SCHEDULE AND PRE-OPERATIONS REPORT

Equipment / area / Surface (ref. #)	Assigned to* (Employee Name)	When done**	What to do, cleaning and sanitizing chemicals to use	Done by (Initial / date)	Pre-operation review	Corrective action

* Codes: 3h = every 3 hours; a/u = after each use; a/o = at opening ; ac = at closing; a/r = as required during daily operations; wk = weekly. Verification _____ Date _____

SANITATION PROCEDURES AND STANDARDS

Item # _____

Location: _____

Item # _____

Frequency:

Standard:

Job Time:

Lockout / tagout:

Equipment:

Chemicals:

Precautions and Preparation

- 1.
- 2.
- 3.

Cleaning Procedures

- 1.
- 2.
- 3.

Safety Concerns

approved by: _____ date: _____

FLOOR PLAN

Bait Placement

Facility and Equipment Maintenance

MAINTENANCE PLAN AND SCHEDULE, INCLUDING EQUIPMENT CALIBRATION

A **Preventive Maintenance Schedule** will be followed, Encl. C1.

Buildings, fixtures, and other physical facilities of the plant shall be maintained in a sanitary condition and kept in repair sufficient to prevent food from becoming adulterated.

The preventive equipment maintenance program will be followed to ensure that equipment, which may impact on food safety, functions as intended. The maintenance procedures and frequencies are based on the equipment manufacturer's manuals or equivalent, or on operating conditions that could affect the performance of the equipment. (See Encl. C2, **Maintenance Procedures and Standards.**)

A written calibration program will be followed, including calibration methods and frequencies. (Equipment calibration is recorded on Encl. B1 in *MANAGEMENT / QA, QC, AND HACCP TEAM.*)

Maintenance and calibration of equipment will be performed by appropriately trained personnel, and all work will be documented.

1. HACCP requires verification by a supervisor or higher-level person that the maintenance task was performed fully. This is accomplished by the higher level authority signing and dating verification of completed maintenance or repair.
2. Thermostats and thermometers are accurately calibrated. If temperature-sensing bulbs on equipment are dirty, inaccurate temperature readings will be produced. Dirt on refrigerator condensing coils or evaporator coils will decrease the effectiveness of the cooling units and increase energy expenditure. Poorly maintained, malfunctioning equipment is dangerous to employees and will result in the production of unsafe products.
3. Instructions for using specific pieces of equipment are available to all personnel, in order that equipment is operated safely and maintained according to manufacturer directions. Management personnel must also instruct (or question) new employees on the proper use and maintenance of equipment before any new employee is allowed to use it.
4. Machine oil must be kept away from food. If it gets into food, it will make people very sick. Food grade lubricants must be used.
5. Boiler chemicals must be food grade material.
5. Equipment is checked by a food production person after any maintenance and/or repair, because equipment repair specialists may not always have corrected the problem or set the controls properly.

FOOD CONTACT SURFACE EQUIPMENT CONSTRUCTION

All equipment and utensils shall be designed and of such materials and workmanship as to be adequately cleanable. Design and construction (and use) shall prevent the adulteration of food with lubricants, fuel, metal fragments, contaminated water, or any other contaminants. All equipment shall be installed so that it, and adjacent spaces, can be easily cleaned.

Holding, conveying, and manufacturing systems (e.g., gravimetric, pneumatic, closed, automated) shall be designed and constructed to enable them to be maintained in an appropriate sanitary condition.

Food contact surfaces shall be maintained to protect food from contamination from any source, including unlawful, indirect food additives. They shall be corrosion resistant when in contact with food; of non-toxic materials; and designed to withstand intended use, the action of food, and if applicable, cleaning compounds and sanitizing agents. Seams on food contact surfaces shall be smoothly bonded or maintained so as to minimize accumulation of food particles, dirt, and organic matter, thus minimizing the opportunity for growth of microorganisms. Worn surfaces shall be repaired or replaced immediately.

NON-FOOD CONTACT SURFACE EQUIPMENT CONSTRUCTION

Non-food-contact surfaces of equipment shall be cleaned as frequently as necessary to protect against contamination of food.

EQUIPMENT OPERATION

Equipment shall be operated so that the food produced will be at or colder than the following:

<u>Refrigerator</u>	
Meat, Fish, Poultry	40°F
Produce	40°F
Dairy	40°F
Freezer	0°F

GASKETS

All gaskets on containers, refrigerators, and freezers shall be cleaned and maintained. They will be replaced when damaged.

COOLING AND REFRIGERATION UNITS

Refrigeration or cooling units shall have non-toxic, corrosion-resistant racks with no restriction for bottom heat removal (e.g., food sitting on a solid shelf). Reach-in refrigerators shall not be used to cool more than 10 pounds of hot food above 120°F per full-door section per hour, unless specifically designed for food cooling. Refrigerators and food display units, when tested empty in operation, must be capable of holding a temperature of 38°F or less over a 4-hour period with the door never opened, compressor on no more than 70% of the time.

Air flow will be more than 50 feet per minute across the bottom of containers in the cooling area. Refrigeration compressors shall be kept free of dirt.

FREEZERS

All freezing and refrigeration units shall be self-defrosting. Freezers shall operate at 0°F (-17.8°C) when tested empty, door never opened in the kitchen over a 4-hour period. The compressor is allowed to be on 80% of the time.

SURPLUS EQUIPMENT AND ITEMS FOR REPAIR

All articles that are not pertinent to the current operation of the food establishment shall be stored properly or will be removed

from the premises. Items for repair shall be handled within _____ days.

DUNNAGE RACKS, SHELVING, PALLETS, DOLLIES, ETC.

These items shall be made of approved materials and shall be designed to store food 6 inches off of the floor.

BACKFLOW PREVENTION VALVES FOR PLUMBING

All equipment, sinks, or floor drains between potable water systems and sewage lines shall have adequate backflow prevention devices.

CO₂ BACKFLOW PREVENTION VALVES

Backflow prevention valves on carbonated beverage dispensers shall be checked / changed at least once each year. There must be a 100-mesh filter and 10-micron filter in front of the valves to trap the extraneous material in the water and prevent malfunction of the valve seats. All backflow prevention devices shall be checked / changed once a year.

WAREWASHING EQUIPMENT

The manufacturer's manual shall be available and shall be used to specify correct operating temperatures. An approved chemical feeder on the automatic warewasher shall be maintained. The audible or visible warning device for replenishing the chemical sanitizer shall be in functioning condition. An accurate thermometer on the warewashing machine will be used to indicate all wash water, rinse, and sanitize temperatures. The pressure gauge and a valve to check pressure on the final rinse line shall be functional and maintained. Test kits shall be used to accurately measure sanitizer concentration. The temperature of the sanitizing rinse water in a high-temperature warewashing machine shall be at 180°F (82.2°C). There shall be an adequate concentration of detergent in clean water in the wash tank of the warewashing machine.

PREVENTIVE MAINTENANCE SCHEDULE

Equipment (reference #)	Assigned to*	When done**	What to do	Done by (Initial / date)	Comments and corrective action
Hand sink					
Utensil washing sink(s)					
Stainless steel work tables					
Dollies, carts, rolling racks					
Vacuum packaging machine					
Refrigeration systems					
Scales(s)					

Verification _____ Date _____

MAINTENANCE PROCEDURES AND STANDARDS

Name (Model #) or Area

Person responsible:

Date:

Verifier:

Job time:

Standard

Employee Maintenance

Equipment required:

Procedure:

Maintenance Department Maintenance

Equipment required:

Procedure:

Safety Warnings (mechanical, chemical, electrical)

Supplies

QUALIFIED SUPPLIERS

We will assure that we only purchase from supplier(s) who can demonstrate adequate control of their process so that they can consistently manufacture within specifications. Raw materials and other ingredients susceptible to contamination with aflatoxin or other natural toxins shall comply with current USDA and FDA regulations, guidelines, and action levels for poisonous or deleterious substances before they are incorporated into the finished food. Compliance regarding aflatoxin shall be accomplished by purchasing raw materials and other ingredients under a supplier's guarantee or certification, and may be verified by analyzing these materials and ingredients for aflatoxins and other natural toxins.

Statistical process control charts should be available upon request from each supplier. Periodic monitoring will be conducted to verify adherence to specifications. Supplier audits will be conducted to validate the status of the supplier certification program.

Major Suppliers of Products Used in the operation and Their HACCP Qualification. (Encl. D1) This summary form can be used to list suppliers and the items they provide. This form requires suppliers to specifically list intervention strategies.

Supplier Letter -- Example. (Encl. D2) This is a form letter that can be sent to suppliers regarding product hazard and control strategies for each item purchased.

Supplier Hazard Control of Items (Encl. D3) can also be sent to suppliers to assure product hazard control compliance.

HAZARD IDENTIFICATION OF FOOD ITEMS

There should be a determination of the hazard of each incoming food item. It is assumed that in all canned food, the spores are dead. In refrigerated food, the question is: Did the supplier wash the vegetative pathogens off or pasteurize the food and reduce the pathogens to a safe level, or does the cook have to do it?

Food items will be identified as to those that the cook controls to make safe and that the supplier controls to make safe.

Beginning with the stock list, hazards and controls will be identified for each food item that the chef / cook makes safe or the supplier makes safe.

Encls. D4 and D5, **Cook Controls for Safe Products**, and **Supplier Controls for Safe Products**, will be used to identify hazards, and controls.

Foods with allergens will also be identified (Encl. D6, **Food Item Allergen Analysis** and Encl. D7, **Detailed List of Food Allergens and Food Intolerance**).

INGREDIENT SPECIFICATION

When possible, product / ingredient specification sheets are obtained for all items received (Encl. D8 **Ingredient Specifications**). Product specification sheets from suppliers can be used to develop ingredient specification sheets for the products being produced. These ingredient forms are a key element in the production of safe, uniform products. Most suppliers can provide ingredient specification sheets for their

products. For example, it is critically important to know and specify what is in food ingredients in order to control possible hazards associated with food allergies.

DEFECT ACTION LEVELS

Natural or unavoidable defects at low levels. Some foods, even when produced under current good manufacturing practice, contain natural or unavoidable defects that at low levels are not hazardous to health.

The FDA establishes maximum levels for these defects in foods produced under current good manufacturing practice and uses these levels in deciding whether to recommend regulatory action. Defect action levels are established for food whenever it is necessary and feasible to do so. These levels may be subject to change upon the development of new technology or the availability of new information.

1. Compliance with defect action levels does not excuse violation of the requirement that food not be prepared, packed, or held under unsanitary conditions or that food manufacturers, distributors, and holds will observe current good manufacturing practice.
2. Evidence indicating that such a violation exists causes the food to be adulterated, even though the amounts of natural or unavoidable defects are lower than the currently established defect action levels.

Mixing food. The mixing of a food containing defects above the current defect action level with another lot of food is not permitted and renders the final food adulterated, regardless of the defect level of the final food.

RECEIVING AND STORAGE

Receiving. Only trained people will receive products. A **Receiving Report** will be kept (Encl. D9). The **Receiving Quality Control** form (Encl. D10) will be used to document incoming ingredients and supplies. Food supplies will be purchased from approved sources only. Procedures for handling, storage and stock rotation will be followed. A written procedure for reject product and its segregation should also be in place (management will develop).

The delivery truck(s) will be clean, at the correct temperature, have good door seals and be secure.

The receiving employee(s) will verify that delivered items meet purchase specifications.

Meat and poultry will be received at 40°F or less.

Raw materials and other ingredients shall be inspected and segregated or otherwise handled to ascertain that they are clean and suitable for processing into food.

Storage. Materials shall be stored under conditions that will protect against contamination and minimize deterioration. Wall clearance in storage areas must be at least 18 inches.

Adulteration. Raw materials and other ingredients shall either not contain levels of microorganisms that may produce food poisoning or other disease in humans, or they shall be pasteurized or otherwise treated during manufacturing so that they no longer contain levels that would cause the product to be adulterated. Compliance regarding adulteration shall be verified

by effective means (e.g., purchasing raw materials and other ingredients under a supplier's guarantee or certification).

Aflatoxin. Raw materials and other ingredients susceptible to contamination with aflatoxin or other natural toxins shall comply with current FDA regulations, guidelines, and action levels for poisonous or deleterious substances before they are incorporated into the finished food.

Compliance regarding aflatoxin shall be accomplished by purchasing raw materials and other ingredients under a supplier's guarantee or certification, and may be verified by analyzing these materials and ingredients for aflatoxins and other natural toxins.

Contamination. Raw materials, other ingredients, and rework susceptible to contamination with pests, undesirable microorganisms, or extraneous material shall comply with applicable FDA regulations, guidelines, and defect action levels for natural or unavoidable defects if a manufacturer wishes to use the materials in manufacturing food.

Compliance regarding contamination shall be verified by any effective means (e.g., purchasing the materials under a supplier's guarantee or certification, or examination of these materials for contamination).

RAW MATERIALS AND OTHER ITEMS

Containers and carriers of raw materials shall be inspected on receipt to ensure that their condition will not contribute to the contamination or deterioration of food.

1. The integrity of all containers will be verified. If any container has been compromised, it will be set aside for appropriate corrective action.
2. There will be visual inspection for any foreign material that could compromise product safety. If there is a problem, the product will be set aside for appropriate corrective action.

SHELF-STABLE PRODUCTS

Shelf-stable products will be received in a clean, dry receiving area and stored in a clean, dry storage area.

COLD STORAGE PRODUCTS

Cold storage products will be inspected for quality and temperature upon receiving.

1. Refrigerated products accepted for receipt shall be at 40°F. Refrigerated products will be moved to refrigerated storage area(s) where the temperature will be kept at 38°F or less.
2. Frozen food will be received frozen and will be stored in holding or receiving freezer(s) where the temperature is maintained at 0°F or less.

DATING AND USE

Products will be dated with receiving date. Oldest product will be used first. There shall be some form of assessment of finished products over the set shelf life.

SINGLE-SERVICE ARTICLES

Single-service articles (e.g., paper cups, paper towels) shall be stored in appropriate containers and shall be handled, dispensed, used, and disposed of so as to protect against contamination of food and food contact surfaces.

FINISHED PRODUCT STORAGE

Finished product will be stored at 35°F in the finished product warehouse space. FIFO will be used to assure product rotation.

SHIPPING

Food will be shipped at ≤10°F frozen or ≤40°F refrigerated. Trucks will be pre-cooled before loading.

**MAJOR SUPPLIERS OF PRODUCTS USED IN THE OPERATION
AND THEIR HACCP QUALIFICATION**

Supplier	Supplies	HACCP-Qualification	Yearly Update Due:
	<i>meat</i>	Letter of Intervention Strategy	
	<i>fish</i>	"	
	<i>poultry</i>	"	
	<i>produce</i>	"	
	<i>herbs & spices</i>	"	
	<i>etc.</i>		
City of _____	(Water)	Water report every 6 months.	
	(Twine used for food)	Meets USDA, CFR requirements	
	(Plastic Packaging)	FDA accepted - letters of certification	

Company Letterhead

To: "Supplier"

Date:

From: "Customer"

Subject: **Product Hazard Control Procedures**

We purchase the following from you:

It is critical to our HACCP program to know what, if any, intervention strategy or hazard controls you perform on these products.

On the attached sheet, please list the items you sell us and indicate the biological, chemical or physical hazards, if any, are associated with the manufacturing / production of these items. If there is a hazard, then indicate your control. The control can be prevention, elimination or reduction of the hazard by some specified amount (indicated by you) to a safe level. Finally, list your monitoring procedure. If there are no hazards, indicate this. Some examples of listings are as follows.

Item	B, C, P, Hazard	Control	Monitor
Raw Hamburger	B Vegetative pathogens C None P None	Carcass wash for a 2D reduction	Temperature, pressure, and chemical concentration of the wash water.
Canned Beans	B Pathogenic spores C None P Rocks, gravel	Cans receive a 12 D <i>C. Botulinum</i> cook. Gravity separator is used on beans	Temperature and time of cook. Calibrate daily. Monitor the number / amount of rocks collected.
Raw celery	B. Vegetative pathogens C None P None	Celery is washed in 40°F water and disinfect in 50 ppm free chlorine at pH 6.5 for a 2 D reduction.	Monitor water temperature and free chlorine level.
Bananas	B None C None P None		
Packaging	B None C Composition materials P None	Only FDA approved chemicals are used.	We check the labels of all components before a lot is produced.

B, C, P = Biological, Chemical, and Physical

We look forward to your early response. If you have any questions, please call.

SUPPLIER HAZARD CONTROL OF ITEMS PURCHASED BY _____.

Supplier _____

Date _____

Food Item(s)	Biological, Chemical, Physical (B, C, P) Hazard(s)	Controls	Monitoring

B, C, P = Biological, Chemical, and Physical

COOK CONTROLS FOR SAFE PRODUCTS

INGREDIENT	B,C,P Hazard	CONTROL					STABILIZE		
		HFO Sort, Remove	Wash	Pasteurize Sterilize	Allergen (inform)	Other	A _w	pH Acid / Ferment	Ref. / Freeze
Meat / poultry / fish / seafood									
Entrée / specialty foods									
Dairy / egg products									
Bakery products									
Grain / mill products									
Nuts									
Fruits / vegetables									
Non-alcoholic beverages / juice / bottled water / other drinks									
Fats / oils									
Sugars / sweeteners / confections									
Condiments / salad dressings / vinegars									
Gravies / sauces / soups									
Spices / flavorings / food chemicals									
Gelatins / puddings / dessert powders									
Alcoholic beverages / bar mixes									

SUPPLIER CONTROLS FOR SAFE PRODUCTS

INGREDIENT	CONTROL						STABILIZE		
	Grown Safe	HFO Sort, Remove	Wash	Pasteurize Sterilize	Allergen (inform)	Other	A _w	pH Acid / Ferment	Ref. / Freeze
Meat / poultry / fish / seafood									
Entrée / specialty foods									
Dairy / egg products									
Bakery products									
Grain / mill products									
Nuts									
Fruits / vegetables									
Non-alcoholic beverages / juice / bottled water / other drinks									
Fats / oils									
Sugars / sweeteners / confections									
Condiments / salad dressings / vinegars									
Gravies / sauces / soups									
Spices / flavorings / food chemicals									
Gelatins / puddings / dessert powders									
Alcoholic beverages / bar mixes									

FOOD ITEM ALLERGEN ANALYSIS

Food Product	BIG EIGHT ALLERGEN INGREDIENTS								FOOD INTOLERANCE		
	Peanuts	Tree nuts	Milk and milk by-products	Eggs	Soy	Wheat	Fish	Crustaceans and shellfish	Sulfites	MSG	Other

DETAILED LIST OF FOOD ALLERGENS AND FOOD INTOLERANCE

Over 170 foods have been documented in the scientific literature as causing allergic reactions. The “big eight categories of allergens account for about 90% of food allergy incidents.

FOOD ALLERGENS

- 1. Milk.** Includes: butter, butter fat, butter oil, buttermilk, artificial butter flavor, casein, caseinates (ammonium, calcium, magnesium, potassium, sodium) cheese, cream, cottage cheese, curds, custard, Ghee, Half & Half, hydrolysates (casein, milk protein, protein, whey, whey protein), lactalbumin, lactalbumin phosphate, lactoglobulin, lactose, lactulose, milk (derivative powder, protein, solids, malted, condensed, evaporated, dry, whole, low-fat, milkfat, non-fat, skimmed, and goat's milk), nougat, pudding, rennet casein, sour cream, sour cream solids, whey (in all forms including sweet, delactosed, protein concentrate), yogurt, malted milk. The following may contain milk products - flavorings (natural and artificial), luncheon meat, hot dogs, sausages, high protein flour, margarine, Simplese ®.
- 2. Egg.** Includes: albumin, egg (white, yolk, dried, powdered, solids), egg substitutes, eggnog, globulin, livetin, vitellin, lysozyme, mayonnaise, meringue, ovalbumin, ovoglobulin, ovomucoid, ovomucin, ovotransferrin, ovovitellin, Simplese ®, surimi. The following may contain eggs - lecithin, marzipan, marshmallows, pasta, and natural and artificial egg flavors. A shiny glaze or yellow colored baked goods may indicate the presence of eggs.
- 3. Wheat.** Includes: bran, bread crumbs, bulgur, cereal extract, couscous, cracker meal, durum, durum flour, enriched flour, farina, flour (all-purpose, enriched, graham, high gluten, high protein, pastry, soft wheat), gluten, kamut, seitan, semolina, spelt, vital gluten, wheat (bran, germ, gluten, malt, starch), whole wheat berries, whole wheat flour. The following may indicate the presence of wheat protein - natural and artificial flavoring, hydrolyzed protein, soy sauce, starch (gelatinized, modified, modified food starch), surimi, vegetable gum.

LEGUMES

- 4. Peanuts.** Includes: beer nuts, cold pressed, expelled, or extruded peanut oil, ground nuts, mixed nuts, monkey nuts, Nu-Nuts ® flavored nuts, nut pieces, peanut, peanut butter, peanut flour, peanut protein, hydrolyzed peanut protein. The following foods may indicate the presence of peanut protein - African, Chinese, Indonesian, Thai, and Vietnamese dishes, baked goods (pastries, cookies, etc), candy, chili, chocolate, (candies, candy bars), egg rolls, marzipan, natural and artificial flavorings, nougat, sunflower seeds. Artificial nuts can be peanuts that have been decaffeinated and recaffeinated with a nut, like pecan, walnut, or almond. Mandelonas are peanuts soaked in almond flavoring.
- 5. Soy.** Includes: hydrolyzed soy protein, miso, shoyu sauce, soy (albumin, flour, grits, nuts, milk, sprouts), soya, soybean (granules, curd), soy protein (concentrate, isolate), soy sauce, Tamari, Tempeh, textured vegetable protein (TVP), tofu. The following ingredients may indicate the presence of soy protein - hydrolyzed protein, natural and artificial flavoring, vegetable broth, vegetable gum, vegetable starch, lecithin, or soy lecithin.
- 6. Crustacean Shellfish.** Includes: crabs, crayfish, lobster and shrimp.
- 7. Fish.** Includes: freshwater or saltwater finfish (anchovies, bass, bluefish, bream carp, catfish, char, chub, cisco, cod, cuttlefish, eel, flounder, grouper, haddock, hake, halibut, herring, mackerel, mahi-mahi, marlin, monkfish, orange roughy, perch, pickerel [dore, walleye], pike, plaice, pollock, pompano, progy, rock fish, salmon, sardine, shark, smelt, snapper, sole, sturgeon, swordfish, tilapia, trout, tuna, turbot, white fish, whiting, octopus, squid, surimi [made from polluck]).
- 8. Tree Nuts.** Includes: almonds, Brazil nuts, caponata, cashews, chestnuts, coconut, filbert/hazelnut, ginko nuts, gianduja (a creamy mixture of chocolate and chopped toasted nuts found in premium and imported chocolates), hickory nuts, lichee nuts, macadamia nuts, marzipan/almond paste, nougat, Nu-Nuts, nut butters i.e. cashew butter, nut meal, nut oil, nut paste i.e. almond paste, nut pieces, pecans (Mashuga nuts), pesto, pine nuts (pinyon nuts), pistachios, pili nuts, shea nuts, walnuts. In addition: Mortadella may contain pistachios, tree nuts may be included in many foods including barbeque sauce, cereals, crackers, and ice cream.

OTHER FOOD ALLERGENS

Sesame seeds, Sunflower seeds, Cotton seed meal, Poppy seeds
Molluscan shellfish. Includes: abalone, snails, clams, and oysters.
Beans (Kidney beans, Navy beans), **Peas, Lentils**
Corn and corn products
Food Colors (Red 40, FD&C Yellow 5)

FOOD INTOLERANCES

Gluten intolerance (Wheat and other cereal products)	Fructose	Chili peppers
Lactose intolerance (Milk and dairy products)	Capsaicin	Azo dyes
MSG (Monosodium glutamate and other glutamates)	Nitrates & Nitrites	Food colors
Sulfites	Phenolic Compounds	Histamine
Acids	Sorbitol	Pepper
Antioxidants	Alcohol	
Caffeine	Benzoates	

INGREDIENT SPECIFICATIONS**Product Name:**

Picture

Product Code:**Product Description:****Shelf Life****Ingredient Statement:****Allergen Statement:****Microbial Specifications:**

Description	Specification
APC	
<i>Escherchia coli</i>	
<i>Listeria spp.</i>	
<i>Salmonella</i>	
Yeast	
Mold	

Physical Specifications:

Description	Specification
Finished Product Weight:	
Dimensions:	
Texture	
Flavor/Aroma	
Foreign Material	
Color	
Shape	

Kosher Specifications*(If desired)*

Nutrition Data for Package

Product Name:
UPC:
Product Description:
Serving Size:
Serving Description:

Nutrient Name	Value	% Daily Value **
Calories (Kcal)		
Calories from Fat (Kcal)		
Total Fat (g)		%
Saturated Fat (g)		%
Trans Fat (g)		
Cholesterol (mg)		%
Sodium (mg)		%
Total Carbohydrates (g)		%
Dietary Fiber (g)		%
Sugars (g)		
Protein (g)		
Vitamin A (IU)		%
Vitamin C (mg)		%
Calcium (mg)		%
Iron (mg)		%

** Percent Daily Values are based on a 2,000 calorie diet. Individual daily values may be higher or lower, depending on calorie needs.

Packaging

Preparation Instructions: (consumer handling, temperature etc.)

Storage: (Before and after preparation)

Warnings:

RECEIVING QUALITY CONTROL

Count

40									
39									
38									
37									
36									
35									
34									
33									
32									
31									
30									
29									
28									
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12									
11									
10									
9									
8									
7									
6									
5									
4									
3									
2									
1									
Total count									
lb.									
oz.									
Grams									

Product tested:

Supplier _____

Date received _____

QC person _____

Box/lot numbers tested _____, _____, _____,
 _____, _____

Weight of cases _____, _____, _____,
 _____, _____

Acceptable standards:

weight:

size:

Process Capability

\bar{x} =

1σ = _____ 6σ = _____

C_p = $\frac{USL-LSL}{6\sigma}$

C_p =

Comments

Grand total _____
(Must be over 50)

