Central Warehouse - Part 1

Hazard Analysis Critical Control Point (HACCP) Resources

HACCP is a process control system identifying where hazards might occur in the food production process and puts into place stringent actions to take to prevent the hazards from occurring.This HACCP Plan is intended for use by School Food Authorities (SFAs) when receiving and storing foods in a central warehouse owned or leased and operated by a SFA.

All central warehouse employees should be familiar with the contents of the HACCP Plan and have ready access. Part 1 of the HACCP Plan does not have to be printed if a current electronic copy is available and readily accessible by the employees and all are able to access and use the HACCP Plan Part 1 information with ease.

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[Facilities 2](#_Toc105678851)

[Equipment Standards - Selection and Installation 3](#_Toc105678852)

[Equipment – Maintenance 3](#_Toc105678853)

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[Employee Continuing Education and Professional Development - Warehouse Manager or Administrator 4](#_Toc105678857)

[Employee Continuing Education and Professional Development – All Employees 5](#_Toc105678858)

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[Employee Illness Decision Guide for Person in Charge (PIC) of Schools with Highly Susceptible Populations (HSP) 10](https://dpincgov-my.sharepoint.com/personal/katrina_perry_dpi_nc_gov/Documents/Guidance%20and%20Resources/Food%20Safety/Warehouse%20HACCP%202022-2023/Warehouse%20Part%201-5/Part%201%20-%20Warehouse%20HACCP%20Plan_2022_draft.docx#_Toc105678867)

[Employee Illness Decision Guide for Person in Charge (PIC) of Schools with General Populations (non-HSP) 11](https://dpincgov-my.sharepoint.com/personal/katrina_perry_dpi_nc_gov/Documents/Guidance%20and%20Resources/Food%20Safety/Warehouse%20HACCP%202022-2023/Warehouse%20Part%201-5/Part%201%20-%20Warehouse%20HACCP%20Plan_2022_draft.docx#_Toc105678868)

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# **Central Warehouse Prerequisite Programs**

**Description:**  The standards presented in this section are based on the 2017 FDA Food Code and corresponding Food Code Supplement.

*Prerequisite Programs* address facilities, equipment, employees, cleaning, sanitizing, and pest control.

Standards addressing safe food handling are outlined in *Safe Food Handling Procedures*.

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|  |  |
| --- | --- |
| Facilities | **MONITORING**  **FREQUENCY** |
| The facility is compliant with Occupational Safety and Health Administration (OSHA) regulations. (Refer to [www.osha.gov](http://www.osha.gov) ) | Annually |
| There is a clearly marked salvage storage area for recalled or damaged foods to be held until proper arrangements for disposal, return, or crediting can be made with the vendor. | Annually |
| Floors, walls, and ceilings are smooth, nonabsorbent, and in good repair. | Monthly |
| Floors are wear-resistant, slip-resistant, nonporous, and graded to drain. | Annually |
| Adequate floor drainage is in high moisture areas. | Annually |
| Lights positioned above workstations so employees do not cast shadows onto their work surface. | Annually |
| Light bulbs shielded, coated, and/or shatterproof are in all areas. | Annually |
| Refrigerators, freezers, and dry storage areas have sufficient lighting 108 lux (10 foot candles).  *Lux is equal to the total intensity of light falling on a one square meter surface one foot away from the point source of light. In the past, the measure used was foot candle. A foot candle is equal to the total intensity of light falling on a one square foot surface one foot away from the point source of light. Your local health department has equipment to measure this.* | Annually |
| The ventilation system meets local regulations *and* is properly constructed. | Annually |
| Ventilation in chemical storage areas is installed in accordance with appropriate building codes. | Annually |
| At least one garbage can with a tight-fitting lid and that is large enough to handle all garbage is in each work area. *(EXCEPTION: If lids are not available, then the garbage can liner must be kept tied when the can is not in use.)* Note: lids do not have to remain on cans when they are in constant use during food preparation. Lids or tightly tied garbage liners must be closed at the end of the day if all trash is not emptied. | Annually |
| Appropriately sized plastic liners line all garbage cans located in each work area. | Monthly |
| Recyclying containers are clean, pest-proof, and located as far away from the building as local regulations allow. | Monthly |
| Dumpster and dumpster pad area are maintained in a clean condition. | Monthly |
| Garbage is removed from all work areas at least once per day. | Daily |
| Garbage cans are washed inside and out with hot, soapy water and rinsed well. | Weekly and as needed |
| The facility has a Food Defense Plan and a copy of the plan is inserted after this page. (Refer to Guide to Developing a Food Defense Plan for Warehouse and Distribution Centers for assistance with developing the plan). | Annually |
| Equipment Standards - Selection and Installation | **MONITORING**  **FREQUENCY** |
| Transport vehicles are sufficiently equipped to transport foods at safe temperatures and in a sanitary manner. | Monthly |
| All food equipment meets an American National Standards Institute (ANSI)-accredited set of standards [Underwriter’s Laboratory (UL) sanitation and National Sanitation Foundation (NSF) are common]. Water heaters do not need to meet these standards. | Annually |
| All equipment is installed, in good working condition, and used according to manufacturer instructions and intended purpose. | Annually |
| Stationary shelving or equipment is mounted on legs at least six inches off the floor or are sealed to a masonry base. | Annually |
| Stationary equipment is mounted on legs on a tabletop at least four inches between the base of the equipment and the tabletop. | Annually |
| All cracks or seams over 1/32-inch are filled with a nontoxic, food-grade sealant. | Annually |
| Equipment – Maintenance | **MONITORING**  **FREQUENCY** |
| Regular preventive maintenance is performed on transport vehicles and vehicles are in safe working order. | Monthly |
| Thermometer accuracy is checked daily and calibrated as needed (see Calibrating Thermometers – In Housein Safe Food Handling Procedures). | Daily |
| All equipment is maintained in good working order. | As needed |
| Unused, broken, or obsolete equipment is removed from the facility. | As needed |
| **Employees - Health**  *Note: Restricting or excluding employees from work pertains to an individual working with unpackaged food, food equipment or utensils, or food-contact surfaces. This situation could be a factor when warehouse drivers are allowed into kitchen facilities where food preparation is occurring. Assess the risk and determine if a driver should be allowed to enter food preparation areas to deliver foods.* | **MONITORING**  FREQUENCY |
| Employees who exhibit the following symptoms should be restricted or excluded from work according to the charts in Appendix A: Employee Health Policy Documents:   * Vomiting from infectious condition * Diarrhea from infectious condition * Sore throat with fever * Diagnosed with *Shigella*, norovirus, *E. coli,* or Hepatitis A infection. * Onset of jaundice (yellowing of the skin or eyes) within 7 days * Diagnosed with Tyhpoid fever (caused by *Salmonella* Typhi) within past three months * Infected cuts or wounds, boils, or lesions containing pus on the hand, wrist, and exposed body parts * Diagnosed with *Salmonella* (nontyphoidal) infection. | As needed |
| Foodborne illness complaints are documented on Foodborne Illness Complaint Form (see Part 3: As Needed Forms). | As needed |
| Employees who have infected cuts, abrasions, or sores on their hands and forearms are wearing bandages and non-latex, single-use gloves over the bandages. | As needed |
| Employees are not sneezing or coughing near exposed foods. | Daily |
| Employees – Appearance | **MONITORING**  **FREQUENCY** |
| Employees are wearing appropriate clothing when they begin work -- clean clothing with sleeves and clean non-skid close-toed work shoes. | Daily |
| Employees - Other Hygienic Practice | **MONITORING**  FREQUENCY |
| Employees bathe daily. | Daily |
| Employees eat only in designated break areas. If beverages are consumed in food storage areas, the beverage is in a cup with a lid and straw and is not stored above foods. | Daily |
| Employees - Hand washing | **MONITORING**  FREQUENCY |
| Employees wash their hands with warm water and hand soap for at least 20 seconds, then rinse under warm water, and use a single-use towel to dry their hands. | Daily |
| All handwashing is done in an approved handwashing sink having running water at 100oF or hotter, handsoap, and towel dispenser or approved drying device and waste disposal container. If hand antiseptics are used, wash hands before applying according to manufactuer’s instructions. Use only hand antiseptics which are approved for use around food. | Daily |
| Employees do not touch any ready-to-eat foods with their bare hands. These foods must be handled using properly cleaned and sanitized utensils; non-latex, single-use gloves; or deli tissues. | Daily |
| Employee Continuing Education and Professional Development - Warehouse Manager or Administrator | **MONITORING**  FREQUENCY |
| At least one employee having supervisory and management responsibility and the authority to direct and control the warehouse services (the Person in Charge) shall be a Certified Food Protection Manager (CFPM) who has shown proficiency of required information through passing a test which is part of an American National Standards Institute (ANSI)-accredited program (the accrediting organization for the Conference for Food Protection Standards for accreditation of food protection manager certification programs). Record all employee Food Safety and HACCP continuing education on the Food Safety and HACCP Continuing Education report located in Part 4. It is not necessary to file a copy of the CFPM certificate in the HACCP plan; however, a copy of the certificate must be available during an inspection. (Note: this employee with supervisory and management responsibility may be a Warehouse Manager, School Nutrition Admminisrator/Supervisor, Warehouse Supervisor, etc.) | Annually |
| Employee Continuing Education and Professional Development – All Employees | **MONITORING**  FREQUENCY |
| All warehouse employees will complete a basic food safety educational course (at least four hours in length) every three to five years. The frequency of continuing education will be determined by the School Nutrition Admninistrator. The continuing education must include basic food safety requirements about personal hygiene, safe food temperatures, and proper receiving and storage techniques consistent with the HACCP plan requirements. This information should be kept with their Professional Standards documentation. | Annually |
| Employee Education - Conditional Employees | **MONITORING**  **FREQUENCY** |
| The hiring administrator or designee explains the Employee Health Policy and Agreement to any conditional school nutrition employee when the job offer is made. This will provide an opportunity for the potential employee to report symptoms, diagnoses, or exposures before starting work. The administrator or designee will follow the Employee Health Policy if the conditional employee reports a symptom or exposure. | As needed |
| Employee Education and Professional Development – New Employee Orientation | **MONITORING**  FREQUENCY |
| The warehouse manager or their designee completes The Food Safety Checklist for Employees within two days after a new employee begins work. This checklist can be found in the Forms Section under Part 4. | As needed |
| The warehouse manager or their designee will show all new employees where the HACCP sections are located and review how the HACCP Plan is organized. | As needed |
| The warehouse manager or their designee will show all new employees including substitues where the Safety Data Sheet (SDS) information is located as soon as they report to work for the first time. | As needed |
| Pest Control | **MONITORING**  **FREQUENCY** |
| Refer to Operation Assessment. | As needed |
| A licensed pest management professional (PMP) is on staff or is on contract to service the operation. | Annually |
| A map of the facility's interior and exterior layout is available and updated each year so one can mark exactly where evidence of pests were found and where bait traps were placed. | Annually |
| Cracks and crevices are sealed and screens closed and in good condition. | Annually |
| All openings surrounding wiring, drain pipes, vents, and flues are caulked or sealed. | Annually |
| Windows and vents are covered with at least a 16-mesh wire screening. | Annually |
| Cracks and gaps are covered at all exterior doors and walls. | Annually |
| Air curtains or fly fans are installed, if necessary, and used. | Annually |
| Lighting is installed away from exterior doors to avoid attracting flying insects. | Annually |
| Areas surrounding light switches, bulletin boards, and vent hoods are caulked and sealed. | Annually |
| All pipes and electrical lines are sealed with wire mesh (copper pads) and/or caulking. | Annually |
| All pesticides are dispensed and applied by a licensed pest management professional (PMP). | As needed |
| Facilities treated as needed. Manager will call for additional pest control visits on an as needed basis when there are noticeable problems between regularly scheduled visits. | As needed |
| Instructions on product labels are followed when warehouse employees are using pesticides. | As needed |
| The building exterior and perimeter is clean and free of clutter and debris. | Monthly |
| Insecticides and rodent traps are properly used in and near the garbage and waste area. Indoors, it is preferable to use traps over baits because rodents may die at any place and be difficult to locate. | Monthly |
| Trapping devices or other means of pests control are properly maintained and used. | Monthly |
| Pesticides are kept in their original containers and properly stored. Pesticides are never stored in food containers. | Monthly |
| Floor drains are free of food particles and other debris. | Daily |
| Cleaning – Equipment and Surfaces | **MONITORING**  **FREQUENCY** |
| Equipment is unplugged before cleaning and food and soil removed from under and around equipment. | As needed |
| Detachable parts are removed and manually washed and rinsed, and sanitized or run through a dishmachine. | As needed |
| Non-food contact surfaces such as floors, walls, ceilings, shelving, doillies, and non-food contact areas of equipment are maintained in clean condition. | Daily and Monthly |
| If used in the warehouse, food-contact surfaces that cannot be removed (such as preparation tables) are cleaned and sanitized with an approved sanitizing agent according to the most recent Food Code, before beginning food service and between tasks. | Daily and as needed |
| Chlorine bleach (5.25% sodium hypochlorite bleach) or another EPA registered cleaning chemical for norovirus is readily available to use for potential nororvirus (vomitus and/or fecal) events in the areas where foods are stored. | Monthly |
| Cleaning – Thermometers | **MONITORING**  **FREQUENCY** |
| The probe or stem of a thermometer is cleaned and sanitized before the first use and between checking temperatures of different foods. If only measuring the temperature of ready-to-eat food (i.e. mayonnaise-based salads, deli meats), the probe or stem, the Food Code requires the thermometer to be cleaned, and not sanitized, between checking different food temperatures; however, thorough cleaning and sanitizing is needed to avoid cross-contact for potential allergens when checking different food temperatures and is a best practice recommendation. | As needed |
| Hazard Communications | **MONITORING**  **FREQUENCY** |
| A list of all hazardous chemicals used in the warehouse operation is available at each site (see *Hazard Communications* in Part 2a: Annual Assessment). | Annually |
| Safety Data Sheets (SDS) are available for all hazardous chemicals used in the operation. | Annually |
| Safety Data Sheets are stored alphabetically in a binder in a location accessible to all employees. Name of the chemical and emergency procedures are highlighted for quick reference. | Annually |
| Hazardous chemicals which are past dated or have not been used within one year are properly discarded. Contact the local environmental health department for guidelines about the disposal of hazardous waste. | Annually |
| Employees, including substitutes, are trained about the hazard communication program and the location of the SDS information. | Annually and as needed for subs |
| The original container of all hazardous chemicals must be properly marked with:   * common name of the contents; * appropriate hazard warnings (it can be any message, words, pictures or symbols convey the hazards of the chemical(s) on the container; and * names and addresses of the manufacturers or other responsible parties.   The label must be legible, in English (and in other languages as needed), and prominently displayed.  If not in the original container, the item is clearly labeled on the side of the holding container with the specific name of the contents (i.e. *Chlorine Bleach* solution, *QUATS solution* instead of *sanitizer*). Do not label the lid because lids are interchangeable. Some chemical suppliers provide labels. | Monthly |

## Employee Health Policy Documents

Note: All Employee Health Policy documents and references pertain to both **Food Employees** 1 and **Conditional Employees** 2.

The following *Return to Work* guides 3 are located in *Part 1: HACCP Plan*:

* *Employee Illness Decision Guide for Person in Charge (PIC) of Schools with Highly Susceptible Populations (HSP)*
* *Employee Illness Decision Guide for Person in Charge (PIC) of Schools with General Populations (non-HSP)*

The following forms are located in *Part 4: Continuing Education and Professional Development:*

* *School Nutrition Food Employee/Conditional Employee Health Policy Agreement,* English and Spanish templates
  + The *School Nutrition Food* *Employee/Conditional Employee Health Policy Agreement* should be signed annually for all employees. File signed copies in Part 4.
* *Food Safety Checklist for Employees*, English and Spanish templates
  + The *Food Safety Checklist for Employees* should be completed and signed annually for all employees. File signed copies in Part 4*.*

1**"Food employee"** means an individual working with unpackaged food, food equipment or utensils, or food-contact surfaces.

2 "**Conditional employee**" means a potential FOOD EMPLOYEE to whom a job offer is made, conditional on responses to subsequent medical questions or examinations designed to identify potential FOOD EMPLOYEES who may be suffering from a disease which can be transmitted through FOOD and done in compliance with Title 1 of the Americans with Disabilities Act of 1990.

3 The school nutrition programs have an obligation to take all reasonable measures to protect the health and well-being of our vulnerable populations. Some schools serve at-risk population students and we highly recommend the School Food Authority (SFA), Board of Education, or School Administrators adopt a local policy/procedure reflecting the need to protect HSP students. This may be done by establishing local guidelines used to classify schools according to the populations served. This local SFA guidance should be used by the Person in Charge (PIC) to determine the correct *Return to Work Guide* to use for selected school(s).

## 

## Documentos de la política de salud del empleado

Nota: Todos los documentos y referencias de la ‘Política de Salud del Empleado’ pertenecen tanto a los **Empleados de Alimentos’** 1 como a los ‘**Empleados Condicionales’** 2.

Las siguientes guías de *Regreso al Trabajo* 3 se encuentran en la *Parte 1: Plan HACCP*:

* Guía de Decisión de Enfermedad del Empleado para la Persona a Cargo (PIC) de las Escuelas con Poblaciones Altamente Susceptibles (HSP)
* Guía de Decisión de Enfermedad del Empleado para la Persona a Cargo (PIC) de las Escuelas con Poblaciones Generales (no PAS)

Los siguientes formularios se encuentran en la *Parte 4: Educación Continua y Desarrollo Profesional*:

* Acuerdo de Política de Salud de Empleado de Alimentos / Empleado Condicional de Nutrición Escolar, plantillas en inglés y español
  + El Acuerdo de Política de Salud del Empleado de Alimentos de Nutrición Escolar / Empleado Condicional debe firmarse anualmente para todos los empleados. Presente copias firmadas en la Parte 4.
* Lista de Verificación de Seguridad Alimentaria para Empleados, plantillas en inglés y español
  + La Lista de Verificación de Seguridad Alimentaria para Empleados debe completarse y firmarse anualmente para todos los empleados. Presente copias firmadas en la Parte 4.

1 "**Empleado de alimentos**" significa una persona que trabaja con alimentos no empacados, equipos o utensilios de comida o superficies en contacto con alimentos.

2 "**Empleado condicional**" significa un potencial EMPLEADO DE ALIMENTOS a quien se hace una oferta de trabajo, condicionado a respuestas a preguntas médicas posteriores o exámenes diseñados para identificar posibles EMPLEADOS DE ALIMENTOS que pueden estar sufriendo de una enfermedad que puede transmitirse a través de ALIMENTOS y esto es realizado en conformidad con el Título 1 - Ley de Estadounidenses con Discapacidades de 1990.

3 Los programas de nutrición escolar tienen la obligación de tomar todas las medidas razonables para proteger la salud y el bienestar de nuestras poblaciones vulnerables. Algunas escuelas sirven a estudiantes en situación de riesgo y recomendamos encarecidamente que la ‘Autoridad de Alimentos Escolares’ (SFA), la Junta de Educación o los administradores escolares adopten una política / procedimiento local que refleje la necesidad de proteger a los estudiantes de HSP. Esto se puede hacer mediante el establecimiento de directrices locales utilizadas para clasificar las escuelas de acuerdo con las poblaciones a las que sirven. Esta guía SFA local debe ser utilizada por la ‘Persona a Cargo’ (PIC) para determinar la ‘Guía de Regreso al Trabajo’ correcta para utilizar para la (s) escuela (s) seleccionada (s).

If a food employee reports a **diagnosis** **of norovirus, *E.coli* O157:H7, *Shigella, Salmonella (nontyphoidal)* or Hepatitis A infection, or Typhoid fever (caused by *Salmonella* Typhi**), immediately exclude the employee and contact the local Health Department for guidance.

**EXCLUDE EMPLOYEE**

**FROM WORK**

* If already at work, send home
* If vomiting and diarrhea, exclude from work until 24 hours after symptoms end
* If jaundiced, contact the Health Department
* If sore throat with fever, must provide doctor’s note before returning to work
* Discuss how illness is transmitted through food by ill food employees

### Employee Illness Decision Guide for Person in Charge (PIC) of Schools with Highly Susceptible Populations (HSP)

**HSP)**

To be used for employees working with a HSP.Use this flow chart to determine if an employee with an ***undiagnosed*** illness can spread the illness through food and should be restricted or excluded from work.

NO

Does the employee have symptoms of an infected cut or wound?

Has the employee been exposed to a confirmed diagnosis of one of the Big Six?

Does the employee have symptoms of sore-throat with fever?

Does the employee have vomiting, diarrhea, or jaundice?

YES

YES

NO

Employee calls school to report illness,

PIC asks EACH of the following questions:

YES

YES

NO

NO

No food   
safety risk

**ALLOW WORK**

**WITH RESTRICTIONS**

* Employee does not work with exposed food, clean equipment, utensils, linens, or unwrapped single-service items
* Contact Health Dept. for guidance

on return of employee

* Reinforce handwashing
* Educate on symptoms
* Discuss illness reporting policy
* Discuss how illness is transmitted through food by ill food employees

Protect the lesion or open wound with an impermeable cover. If the lesion or open wound is located on a hand, use a single-use glove.

No food   
safety risk

No food   
safety risk

No food   
safety risk

**ALLOW REGULAR WORK**

* Educate on symptoms
* Reinforce handwashing
* No bare hand contact with ready-to-eat foods
* Discuss illness reporting policy
* Discuss how illness is transmitted through food by ill food employees

NO

Does the employee have symptoms of an infected cut or wound?

Has the employee been exposed to a confirmed diagnosis of one of the Big Six?

Does the employee have symptoms of sore-throat with fever?

Does the employee have vomiting, diarrhea, or jaundice?

YES

YES

NO

Employee calls school to report illness,

PIC asks EACH of the following questions:

YES

YES

NO

NO

No food   
safety risk

Protect the lesion or open wound with an impermeable cover. If the lesion or open wound is located on a hand, use a single-use glove.

No food   
safety risk

No food   
safety risk

No food   
safety risk

**ALLOW WORK**

**WITH RESTRICTIONS**

* Employee does not work with exposed food, clean equipment, utensils, linens, or unwrapped single-service items
* Contact Health Dept. for guidance

on return of employee

* Reinforce handwashing
* Educate on symptoms
* Discuss illness reporting policy
* Discuss how illness is transmitted through food by ill food employees

**ALLOW REGULAR WORK**

* Educate on symptoms
* Reinforce handwashing
* No bare hand contact with ready-to-eat foods
* Discuss illness reporting policy
* Discuss how illness is transmitted through food by ill food employees

If a food employee reports a **diagnosis** **of norovirus, *E.coli* O157:H7, *Shigella, Salmonella (nontyphoidal)* or Hepatitis A infection, or Typhoid fever (caused by *Salmonella* Typhi**), immediately exclude the employee and contact the local Health Department for guidance.

### Employee Illness Decision Guide for Person in Charge (PIC) of Schools with General Populations (non-HSP)

**HSP)**

To be used for employees working with general populations.Use this flow chart to determine if an employee with an ***undiagnosed*** illness can spread the illness through food and should be restricted or excluded from work.

**EXCLUDE EMPLOYEE**

**FROM WORK**

* If already at work, send home
* If vomiting and diarrhea, exclude from work until 24 hours after symptoms end
* If jaundiced, contact the Health Department
* If sore throat with fever, must provide doctor’s note before returning to work
* Discuss how illness is transmitted through food by ill food employees

## Recommendations for Equipment Maintenance Schedule Tasks

1. State the preventive Maintenance Tasks needed for your facility. Some suggestions include:

* Cleaning condensors of refrigeration and freezer units
* Defrosting freezer units
* Oiling and Lubricating moving parts of equipment- slicers, mixers, etc.
* Changing HVAC Filters if applicable
* Schedule Fire suppression system
* Schedule Fire extenguisher inspection
* Check cords and plugs for equipment operated by electricity
* Preventive maintenance of delivery vehicles and fork lifts

1. Tell who is responsible for the maintenance tasks; for example:

* Conducted by contracted service – name of business
* Conducted by employees/departments of the SFA

1. Indicate when or how often the tasks are performed – specific dates or frequency
2. Insert the completed preventive maintenance schedule in the designated place of *Part 2a: Annual Assessment*.

## Sample Cleaning Schedule and Procedures

You may adapt the sample cleaning schedule on the next page or develop your own as long as the schedule in use at the facility contains a comprehensive plan for keeping the facility clean and sanitary.



**NOTE: You are not required to print this Sample Cleaning Schedule and Procedures. It is provided as a sample cleaning schedule which may be adapted for your warehouse. You should print only the final version approved for use in your warehouse and insert it into *Part 2a: Annual Assessment* in the designated place.**

The equipment listed is not an exhaustive list. Please add equipment/chores currently not on the list and delete any equipment/chores you do not have. Adjust procedures to ensure manufacturer’s recommendations or specific instructions for cleaning chemicals used are followed.

Add employee name/position assigned to each cleaning chore. Post the actual schedule used in your warehouse in a visible location for easy reference and file a copy in the *Part 2b: Operation Assessment*.

Sample Cleaning Schedule and Procedures (Use in combination with the Sample Cleaning Procedures)

Sample Cleaning Schedule

***Employees are responsible for all of assigned tasks throughout the month indicated. Refer to the cleaning procedures in the HACCP plan for details.***

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Employee | Aug | Sept. | | Oct | Nov | Dec | | Jan | Feb | March | | April | May | June |
|  | 1-8 | 9-16 | | 17-23 | 24-30 | 1-8 | | 9-16 | 17-23 | 24-30 | | 1-8 | 9-16 | 17-23 |
|  | 9-16 | 17-23 | | 24-30 | 1-8 | 9-16 | | 17-23 | 24-30 | 1-8 | | 9-16 | 17-23 | 24-30 |
|  | 17-23 | 24-30 | | 1-8 | 9-16 | 17-23 | | 24-30 | 1-8 | 9-16 | | 17-23 | 24-30 | 1-8 |
|  | 24-30 | 1-8 | | 9-16 | 17-23 | 24-30 | | 1-8 | 9-16 | 17-23 | | 24-30 | 1-8 | 9-16 |
| 1. **HACCP Assignment: \_\_\_\_\_\_\_\_\_\_\_** 2. **Tables/Drawers/Ingredient Bins** 3. **Sweep/Mop** 4. **Garbage Cans/ Hand Sink** 5. ***Dry Storage* Area *(weekly)*** 6. ***Restrooms/ Break Area (weekly)*** 7. **Air Vents (monthly)** 8. **Carts and Storage Racks (monthly)** | | | 1. **HACCP Assignment: \_\_\_\_\_\_\_\_** 2. **Sweep & Mop** 3. **Transport Vehicle Maintenance** 4. **Garbage Cans / Hand Sink** 5. **Windows *(Monthly)*** 6. ***Freezer (weekly)*** 7. ***Back* *Entrance/Dumpsters (weekly)*** 8. **Chemical Storage Room (monthly)** | | | | 1. **HACCP Assignment: \_\_\_\_\_\_\_\_\_\_** 2. **Shelving** 3. **Sweep & Mop** 4. ***Coolers* (*weekly*)** 5. ***Freezer* (*weekly*)** 6. **Building Exterior (monthly)** 7. **Doors (monthly)** | | | | 1. **HACCP Assignment: \_\_\_\_\_\_\_\_\_\_** 2. **Loading and Transport Equipment** 3. **Sweep & Mop** 4. **Sinks** 5. ***Carts and dollies (weekly)*** 6. **Fans (monthly)** 7. **Clean & Sanitize Drains (monthly)** | | | |

**NOTE: Download this page if desired and adjust the tables above to reflect tasks required for your warehouse and for the number of employees assigned. Use in combination with the procedures on the following pages .**

**Post the schedule for easy reference and file a copy in *Part 2b: Operation Assessment*.**

**Sample Cleaning Schedule and Procedures (continued)**

**(Use in combination with the Sample Cleaning Schedule as employee reference. These reference procedures do not have to be printed and posted.)**

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| **Item** | **Frequency** | **Procedures to Clean** |
| **Floors** | Daily | **Method 1:**   1. Fill mop bucket with four gallons of cool water. 2. Add an all-purpose cleaner. Mop floor with solution.   **Method 2:**   1. Fill mop bucket with four gallons of cool wate.r 2. Add an all-purpose cleaner. 3. Apply solution freely with mop or scopp. 4. Scrub with deck brush 5. Rinse and squeegee down floor drain. |
| Monthly | **Method 1:**   1. Fill mop bucket with four gallons of warm water. 2. Add degreaser if needed. 3. Apply solution freely with mop. 4. Allow the solution to remain on the floor four to five minutes. 5. Scrub heavily soiled areas with deck brush or broom.   **Method 2:**   1. Rinse and fill mop bucket with clear water. 2. Using clean mop, prepare solution using four gallons of warm water. 3. Add degreaser. 4. Apply solution feely with mop or scoop. 5. Scrub with deck frush. 6. Push down the floor drain. |
| **Mop and**  **Mop Buckets** | Daily | 1. Hang upside down to dry. 2. Rinse mops, brooms, and dustpans. |
| **Freezer, Reach In** | Daily | 1. Clean up spills immediately. 2. Spray exterior door handles with detergent solution. 3. Wipe clean. |
| Monthly | **Exterior:**   1. Spray with an all-purpose cleaner, including fronts, handles, sides, hinges, latches, wheels, and legs. 2. Rinse with clear water. 3. Dry with a clean towel. |
|  | As Necessary | 1. Transfer food to another freezer. 2. Unplug 3. Remove shelves 4. Defrost, if necessary. 5. Wash shelves in a three-compartment sink. 6. Scrub interior walls, top, bottom, sides, doors, gaskets, latch and hinges with an all-purpose cleaner. 7. Rinse with clear water. 8. Turn on. 9. Replace shelves 10. Replace food when temperature reaches 0oF (-18oC) |

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| **Freezer,**  **Walk In** | Daily | 1. Clean up spills immediately. 2. Spray exterior doors and handles with detergent. 3. Wipe clean. |
| Monthly | Exterior:   1. Spray with an all-purpose cleaner, including front, handles, sides, hinges, and latches. 2. Rinse with clear water and dry with a clean paper towel. |
| As Necessary | 1. Frost should not exceed ¼-inch. 2. Turn off. 3. Transfer food to another freezer. 4. Remove shelves. 5. Defrost 6. Clean shelves, interior walls, top, floor, and gaskets with an all-purpose cleaner. 7. Turn on. 8. Wipe dry. 9. Replace food when temperature reaches 0oF 10. Do not flush interior with water. |
| **Hand Sink** | Daily | 1. Spray outside, inside and around faucet surface with detergent. 2. Wipe clean. |
| Monthly | 1. Spray under lip of sink and surround wall areas, back splash, pipes, etc. with detergent solution. 2. Wipe clean. |

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| **Ice Machine** | Daily | 1. Spray outside surfaces with a detergent solution and wipe clean. 2. Clean and sanitize ice scoop in a three-compartment sink. | |
| Weekly | 1. Inspect the drain hose for debris. 2. Clean with a detergent solution and wipe clean. 3. Sanitize the surface with a properly prepared sanitizing solution. | |
| Monthly | **Exterior:**   1. Spray outside surfaces carefully with detergent 2. Clean all surfaces including hinges and legs. | |
| Seasonally | 1. Unplug. 2. Remove loose ice from bins. 3. Wash inside bin surfaces with a detergent solution. 4. Rinse thoroughly with clear water. 5. Re-plug. | |
| **Refrigerator,**  **Reach In** | Daily | 1. Clean up spills immediately. 2. Spray exterior doors and handles with detergent. 3. Wipe clean. |
| Monthly | **Interior:**   1. Using a stiff brush, scrub refrigerator including top, sides, bottom, shelves, back, door, and gaskets with an all-purpose cleaner. 2. Rinse with clear water.   **Exterior:**   1. Scrub front, sides, doors, handles, latches, wheels and legs with an all-purpose cleaner. 2. Rinse with clear water. 3. Air-dry. |

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| **Refrigerator,**  **Walk In** | Daily | 1. Clean up spills immediately. 2. Wipe exterior door and handle with detergent. 3. Wipe clean with a clean cloth. |
| Monthly | **Interior:**   1. Wash shelves, walls, door, latch, hinges, floor and air curtain (if applicable) with an all-purpose cleaner. 2. Rinse with water |
|  | As Necessary | 1. Remove food. 2. Remove shelving. 3. Scrub with an all-purpose cleaner and stiff brush. 4. Rinse with clear water. 5. Replace food. |
| **Storeroom and Shelving** | Daily | 1. Clean up spills immediately. |
| Monthly | 1. Organize. 2. Dust cans, exposed shelves and pallet surfaces. 3. Upon delivery remove cans from carton, inspect for dents and follow dented can procedure, and date. 4. Rotate all stock (FIFO). |
| As Necessary | 1. Remove foods from shelving units and pallets. 2. Scrub pallets and shelves, including posts, and legs with an all-purpose cleaner and stiff brush. 3. Rinse 4. Air-dry |

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| **Trash Cans** | Daily | 1. Empty. 2. Rinse with warm water to ensure all loose food particles are dislodged. 3. Replace liners. |
| Weekly and As Needed | 1. Scrub inside, outside, handles and base with an all-purpose cleaner and stiff brush. 2. Rinse with clear water. 3. Turn upside down to drain. |
| **Utility Carts/Dollies** | Daily | 1. Wipe top, sides, handles, ledges, shelves, under shelves, and wheels with an all-purpose cleaner and rinse. | |
| Monthly | 1. Scrub top, sides, handle, ledges, shelves, and wheels with an all-purpose cleaner and stiff brush. 2. Rinse with warm water. | |
| **Transport Vehicles** | Daily | * 1. Perform a walk-around inspection of the vehicle prior to being placed into service each day (lights, mirrors, tires, fuel, etc).   2. Verify vehicles are clean and will maintain required temperatures for food transport.   3. Inspect fluids and pressures as required and maintain proper levels. | |
| Monthly | 1. Check refrigeration and freezer units. 2. Perform detailed cleaning and maintenance as required by CN Administrator or Warehouse Manager. | |
| Annually | 1. Obtain required inspections and perform annual required maintenance. | |

## Advantages and Disadvantages of Different Chemical Sanitizers

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| --- | --- | --- | --- | --- |
| **Chemical** | **Concentration** | **Contact Time** | **Advantage** | **Disadvantage** |
| Chlorine | 50 ppm in water between 75oF (24oC) and 100oF (38oC) | 7 seconds | Effective on a wide variety of bacteria; highly effective; not affected by hard water; generally inexpensive | Corrosive, irritating to the skin, effectiveness decreases with increasing pH of solution; deteriorates during storage and when exposed to light; dissipates rapidly; loses activity in the presence of organic matter |
| Iodine | 12.5-25 ppm in water at least 68oF (20oC) | 30 seconds | Forms brown color indicating strength; not affected by hard water; less irritating to the skin than is chlorine; and activity not lost rapidly in the presence of organic matter. | Effectiveness decreases greatly with an increase in pH (most active at pH 3.0; very low acting at pH 7.0); should not be used in water at 120oF (49oC) or hotter; and might discolor equipment and surfaces. |
| Quaternary Ammonium Compounds | Up to 200 ppm in water at least 75oF (24oC) | 30 seconds | Nontoxic, odorless, colorless, non-corrosive, nonirritating; stable to heat and relatively stable in the presence of organic matter; active over a wide pH range | Slow destruction of some microorganisms; not compatible with some detergents and hard water |

**\*** Chemical SANITIZERS and other chemical antimicrobials applied to FOOD-CONTACT SURFACEs shall meet the requirements specified in 40 CFR 180.940 Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (food-contact surface sanitizing solutions).

1 Chlorine sanitizer strength and temperatures are dependent on the pH as indicated by the chart below:



## School Children’s Health Act of 2006

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**Session Law 2006-143; House Bill 1502.**

The General Assembly of North Carolina enacts:

**SECTION 1.** G.S. 115C-12 is amended by adding a new subdivision to read:

(33) Duty to Protect the Health of School-Age Children From Toxicants at School. The State Board shall address public health and environmental issues in the classroom and on school grounds by doing all of the following:

a. Develop guidelines for sealing existing arsenic-treated wood in playground equipment or establish a time line for removing existing arsenic-treated wood on playgrounds and testing the soil on school grounds for contamination caused by the leaching of arsenic-treated wood in other areas where children may be at particularly high risk of exposure.

b. Establish guidelines to reduce students' exposure to diesel emissions that can occur as a result of unnecessary school bus idling, nose-to-tail parking, and inefficient route assignments.

c. Study methods for mold and mildew prevention and mitigation and incorporate recommendations into the public school facilities guidelines as needed.

**d. Establish guidelines for Integrated Pest Management consistent with the policy of The North Carolina School Boards Association, Inc., as published in 2004. These guidelines may be updated as needed to reflect changes in technology.**

**e. Establish guidelines for notification of students' parents, guardians, or custodians as well as school staff of pesticide use on school grounds.**

**SECTION 2.** G.S. 115C-47 is amended by adding four new subdivisions to read:

***(45) To Address the Use of Pesticides in Schools. Local boards of education shall adopt policies that address the use of pesticides in schools. These policies shall:***

***a. Require the principal or the principal's designee to annually notify the students' parents, guardians, or custodians as well as school staff of the schedule of pesticide use on school property and their right to request notification. Such notification shall be made, to the extent possible, at least 72 hours in advance of nonscheduled pesticide use on school property. The notification requirements under this subdivision do not apply to the application of the following types of pesticide products: antimicrobial cleansers,*** ***disinfectants, self-contained baits and crack-and-crevice treatments, and any pesticide products classified by the United States Environmental Protection Agency as belonging to the U.S.E.P.A. Toxicity Class IV, "relatively nontoxic" (no signal word required on the product's label).***

***b. Require the use of Integrated Pest Management. As used in this sub-subdivision, "Integrated Pest Management" or "IPM" means the comprehensive approach to pest management that combines biological, physical, chemical, and cultural tactics as well as effective, economic, environmentally sound, and socially acceptable methods to prevent and solve pest problems that emphasizes pest prevention and provides a decision-making process for determining if, when, and where pest suppression is needed and what control tactics and methods are appropriate.***

(46) To Address Arsenic-Treated Wood in the Classroom and on School Grounds. Local boards of education shall prohibit the purchase or acceptance of chromated copper arsenate-treated wood for future use on school grounds. Local boards of education shall seal existing arsenic-treated wood in playground equipment or establish a time line for removing existing arsenic-treated wood on playgrounds, according to the guidelines established under G.S. 115C-12(33). Local boards ofeducation are encouraged to test the soil on school grounds for contamination caused by the leaching of arsenic-treated wood.

(47) To Address Mercury in the Classroom and on School Grounds. Local boards of education are encouraged to remove and properly dispose of all bulk elemental mercury, chemical mercury, and bulk mercury compounds used as teaching aids in science classrooms, not including barometers. Local boards of education shall prohibit thefuture use of bulk elemental mercury, chemical mercury compounds, and bulk mercury compounds used as teaching aids in science classrooms, not including barometers.

(48) To Address Exposure to Diesel Exhaust Fumes. Local boards of education shall adopt policies and procedures to reduce students'exposure to diesel emissions."

**SECTION 3.** Nothing in this act shall be construed to create a private cause of action against the State Board of Education, a local board of education, or their agents or employees.

**SECTION 4.** G.S. 115C-47(45)b., as enacted by Section 2 of this act, becomes effective October 1, 2011. The remainder of this act becomes effective October 1, 2006.

In the General Assembly read three times and ratified this the 10th day of July, 2006.

Beverly E. Perdue, President of the Senate

James B. Black, Speaker of the House of Representatives

Michael F. Easley, Governor

Approved 7:39 p.m. this 19th day of July, 2006

Page 2 Session Law 2006-143 SL2006-0143

## Guide to Developing a Food Defense Plan for Warehouse and Distribution Centers

**What is Food Defense?**

Food defense is putting measures in place reducing the chances of the food supply from becoming intentionally contaminated using a variety of chemicals, biological agents or other harmful substances by people who want to do us harm. These agents could include materials not naturally occurring or substances not routinely tested for in food products. A terrorist’s goal might be to kill people, disrupt our economy, or ruin your business. Intentional acts generally occur infrequently, can be difficult to detect, and are hard to predict.

Food defense is ***not*** the same as food safety. Food safety addresses the accidental contamination of food products during storage and transportation and focuses on biological, chemical or physical hazards. The main types of food safety hazards are microbes, chemicals and foreign objects. Products can become contaminated through negligence and can occur during storage and transportation.

Some of the information you will use to create your Food Defense Plan will already exist in your Hazard Analysis and Critical Control Point (HACCP) plan and other documents relating to emergency response procedures. Consult these documents for information. There is no need to “reinvent the wheel” when developing your Food Defense Plan.

**Why Develop a Food Defense Plan?**

A Food Defense Plan helps you identify steps you can take to minimize the risk food products in your establishment will be intentionally contaminated or tampered with. A plan increases preparedness. Although the plan should be in place always, it may be particularly helpful during emergencies. During a crisis, when stress is high and response time is at a premium, a documented set of procedures improves your ability to respond quickly. **A Food Defense Plan will help you maintain a safe working environment for your employees, provide a safe product to your customers, and protect your School Food Authority.**

By using this guide, you will be able to develop a food defense plan specific to your facility. Keep in mind not all the guidance contained in this document may be appropriate or practical for every warehouse and distribution center. You should review the guidance and assess which preventive measures are suitable for your operation. You should determine the most cost-effective way to achieve food defense goals based on your facility’s situation. **It is important to remember no “one size fits all” approach will fit when creating your Food Defense Plan. The plan can be as long or as short as is appropriate for your operation.**

**Who Might Adulterate a Food Product?**

Below are some examples of the types of individuals who might be motivated to intentionally adulterate food products. You should contact your local law enforcement community for additional information about potential local threats to your facility.

**Examples of Threats**

• Disgruntled current or former employee

• Members of terrorist or activist groups posing as:

- Cleaning crew

- Contractors

- Temporary employees

- Truck drivers (shipping and receiving)

- Visitors

- Utility Representatives

Individuals whowant to intentionally adulterate product and do not have authorized access to your facility are considered intruders. Another threat may come from an internal source, such as disgruntled current or former employees and other insiders, who typically know what procedures are followed in the facility and often know how to bypass many security controls which would detect or delay an outside intruder.

**Steps in Developing a Food Defense Plan**

You may use the following three steps when developing a Food Defense Plan. If you follow and complete these steps and use the forms provided as a template, you will have developed a food defense plan for your facility. These three steps are explained more fully on the following pages.

1. Conduct a Food Defense Assessment
2. Develop a Food Defense Plan
3. Implement the Food Defense Plan

**Step 1 – Conduct a Food Defense Assessment**

Begin by choosing a person or team to be responsible for the security of your warehouse or distribution center. The team or responsible person will answer the questions in *the Food Defense Assessment* in *Part 2: HACCP Assessment* below to help you understand which parts of your facility may be more vulnerable. When completing this assessment remember to consider both potential internal and external threats. The results of the assessment should be kept confidential, so they do not provide a roadmap for future attacks.

**Step 2 – Develop a Food Defense Plan**

Now you have identified the aspects of your warehouse or distribution center which may be vulnerable you will need to identify cost-effective preventive actions to be taken minimizing those vulnerabilities.

At a minimum, your Food Defense Plan should address:

* inside security
* outside security
* storage security
* shipping and receiving security

Some examples of potential vulnerabilities and food defense measures are listed below.

|  |  |
| --- | --- |
| **General Inside Security** | |
| **Sample Vulnerabilities** | **Potential Food Defense Measures** |
| Unescorted visitors with access to storage areas | Limit visitor access through the use of checkpoints and badges. Restrict visitors from congregating/waiting in close proximity to outside dock areas. |
| Personnel security – contractors | Require contractors to screen and train their employees. Provide plant supervision or oversight of contract staff working in the facility. |

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| **Storage Security** | |
| **Sample Vulnerabilities** | **Potential Food Defense Measures** |
| Cleaning supplies, pest control chemicals and other hazardous material may be used as contaminants. | Secure access to all points of building entry during non-operating hours. Control use and storage of hazardous materials by locking in area away from other inventory. Allow access to only those who should have access. |

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| **Shipping and Receiving Security** | |
| **Sample Vulnerabilities** | **Potential Food Defense Measures** |
| Unscheduled deliveries | Accept receipt of only scheduled deliveries. Inventory packages against manifest and order forms and examine package integrity. |
| Products shipped in unsecured trucks, or multiple deliveries per shipment (less-than-truckload) | All truck shipments should be secured by use of tamper-evident seals. Drivers should be trained regarding proper shipping documentation. |
| Contaminants placed in products awaiting loading/unloading | Make periodic checks of integrity of packaging. Require personnel identification badges. Increase employee awareness of this risk. CCTV may also be used. |
| Truck drivers on dock with access to plant | Have drivers sign in and escort them at all times while inside the facility. |

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| **General Outside Security** | |
| **Sample Vulnerabilities** | **Potential Food Defense Measures** |
| Open perimeter, allowing access to facility | Secure all entry ways, windows, vents, loading bays, and other access points. |
| Exterior access to storage areas, loading docks, on site trailers used for cold and dry storage | Fence exterior access points to storage structures. Secure all access points, including loading areas. Install exterior lighting. Use tamper-evident locks or seals on trailers. |

Using the information above and identified vulnerabilities from your Food Defense Assessment, you are now ready to complete your plan. **The following pages give some potentially helpful examples to use when developing a Warehouse Food Defense Plan.**

**Food Defense Plan for:**

(Your facility’s name)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Step 1. Begin by answering the Food Defense Assessment questions to determine if changes should be made to your current practices. (Refer to the Food Defense Assessment in Part 2.)

Step 2. Copy the possible areas of vulnerability you found into the column called “Vulnerability” below. Then in the column beside it, list what food defense solutions you plan to use to reduce them. If you do not know of possible solutions, you may refer to <http://www.fsis.usda.gov/wps/portal/fsis/topics/food-defense-defense-and-emergency-response>. The sample plan below give examples of vulnerabilities and solutions which may be different from those identified in your asessment.

**Outside Security**

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| --- | --- |
| Vulnerability | Food Defense Solutions |
| Example: There is no outside surveillance system. | Example: Install a security system. |
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**Inside Security**

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| --- | --- |
| Vulnerability | Food Defense Solutions |
| Example: No record of customers to contact in case of a food recall. | Example: Keep a list of major customers, how to contact them and what foods they generally buy. |
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**Shipping and Receiving Security**

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| --- | --- |
| Vulnerability | Food Defense Solutions |
| Example: Deliveries are never on a schedule. | Example: Set up a delivery schedule with supplier and stick to it. |
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**Personnel Security**

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| --- | --- |
| Vulnerability | Food Defense Solutions |
| Example: Employees do not know intentional food poisoning could occur. | Example: Discuss intentional food poisoning with employees and what they should do if they suspect it. |
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If you suspect someone has tampered with food at your facility consult your emergency contact list.

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| **Emergency Contact List\*** | |
| **Person, Agency or Organization** | **Phone Number** |
| Warehouse Emergency Contact/Crisis Management Team |  |
| Local Police Department |  |
| Local Federal Bureau of Investigation (FBI) Office Weapons of Mass Destruction Coordinator  <https://www.fbi.gov/investigate/wmd> |  |
| City/County Department of Health |  |
| State Department of Health |  |
| State Department of Emergency Response or Homeland Security |  |
| USDA Food Safety and Inspection Service (FSIS) Office of Program Evaluation, Enforcement and Review  (OPEER) |  |
| USDA FSIS Office of Food Defense & Emergency Response (NC District Office) | 1-800-662-7608 |
| Food and Drug Admininstration (FDA) |  |
| Customers |  |
| Insurance Carrier |  |
| Other |  |
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\*Add other contacts as needed or required by the School Food Authority (SFA).**Step 3 – Implement the Food Defense Plan**

Key elements of effective plan implementation include assigning responsibilities, training staff, developing contact lists, and checking your recall plan.

**Assigning Responsibilities**

Individual employee’s food defense responsibilities should be defined and documented in your plan. Assign overall responsibility for food defense to a single employee, if possible, who has an understanding of the security requirements.

**Staff Education**

Educate staff in all provisions of the plan. The purpose of food defense awareness training is to ensure your employees know their responsibilities. Educational opportunities should address access control procedures, access to restricted areas, protecting critical components, and procedures for reporting suspicious activities. Understanding the threat of intentional adulteration and the potential consequences should help employees consistently execute preventive measures, increasing the overall effectiveness of the plan. Encourage the “neighborhood watch” concept-employees can be your “eyes and ears”.

**Food Defense Plan Assessment and Revision**

Review your plan and revise it, as needed, at least annually or when there is a change in your process. You may need to revise the plan to address changing conditions such as, adding a new customer; adding a new technology; etc. Record what you have done in Part 3: Assessment.

**Emergency Contact Numbers**

In addition to warehouse employees, current local, state and federal government Homeland Security contacts and public health officials should be listed in the plan. Local law enforcement and FBI offices should also be included in the contact list. Update the list regularly. You may wish to keep the list near your phones for a ready reference.

**Product Recall Procedures**

You probably already have Product Recall procedures developed and included in some other plan in your operation. Please review your recall procedures and determine if any updates need to be made to address food defense concerns. If you do not have established recall procedures in place, consider development of recall procedures.

# **Central Warehouse Safe Food Handling Procedures**

**Description:**  The standards presented in this section are based on the 2017 FDA Food Code and the corresponding Food Code Supplement. An effective HACCP Plan will help control potential food safety hazards arising during all aspects of food service (receiving, storing, preparing, cooking, cooling, reheating, holding, assembling, packaging, transporting and serving). This section:*Safe Food Handling Procedures,* addresses safe handling throughout these processes, especially those associated with Central Warehouse operations. Standards addressing facilities, equipment, cleaning, sanitizing, pest control, and employees are outlined in the *Prerequisite Programs* section*.*

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| Purchasing and Receiving | **MONITORING**  **FREQUENCY** |
| **All food and beverages are purchased from an approved vendor. An approved vendor is a licensed/permitted food /beverage establishment. Fresh produce must be obtained from an approved vendor or from a farm having obtained Good Agricultural Practice (GAP) Certification Parts 1 & 2 or equivalent. The School Food Authority (SFA) Central Office will identify approved sources of food, beverages and produce.** | Annually and as needed |
| Temperature-controlled delivery vehicles are clean and operating at temperatures outlined in Transportation Vehicle Criteria. | Daily |
| Food is inspected within 10 minutes of delivery using the criteria outlined in Criteria for Accepting or Rejecting a Food Delivery. Rejected food is segregated from all other items until returned to the vendor. | As needed – note on invoice |
| The temperature of refrigerated and cooked foods is taken within 10 minutes of delivery using the guidelines outlined in Criteria for Accepting or Rejecting a Food Delivery.Frozen foods are checked to be sure they are rock solid and no water marks appear on the packaging. Food not at proper temperature are segregated from all other items until returned to the vendor.  Note: Signing the invoice indicates foods were received in good condition and at proper temperature; therefore, an additional receiving log is not required unless dictated by local procedures. | As needed – note on invoice |
| No past-dated foods are accepted or used in the operation. This includes foods labeled “Sell By, Expiration Date, Best If Used By, and Use By.” See Food Product Dating in the *Safe Food Handling Procedures* section of Part 1 for further explanation of these terms. | As needed |
| Foods and beverages of non-domestic origin are not to be accepted and used unless they comply with USDA’s Buy American procurement guidelines and have been approved in advance by the SFA's School Nutrition Administrator. Your School Nutrition Administrator should provide a list of currently approved non-domestic products. Any food or beverage of non-domestic origin not previously approved must be rejected at the time of delivery so a credit may be issued to the School Nutrition account. | As needed - during the receiving process |
| Employee food for personal consumption brought from outside should be clearly labeled and stored in a designated area to prevent contamination of the food under the control of the warehouse. If allowed by local procedures, foods from other outside sources (school groups, sports teams, etc.) and being stored in the warehouse should be clearly labeled and stored in a designated are to prevent contamination. | As needed |

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| Dry Storage | **MONITORING**  **FREQUENCY** |
| Food is stored using the criteria in Storage Guidelines for Specific Foods. | Monthly |
| **USDA donated foods** – Label, using permanent black marker, with date received (month/year) in a conspicuous location on the case or a label. If food is taken out of the pallet or case, label using a permanent black marker, each individual can/container with the pack date (month/year) appearing on the case or label with the receipt date (month/year) if no pack date is available.  **Commercially packaged foods** – label, using permanent black marker, with date received (month/year) in a conspicuous location on the case or a label. If food is taken out of the pallet or case, label, using permanent black marker, each individual can/container with the receipt date (month/year).  If foods have a firmly attached sticker from the vendor showing delivery date, this sticker may be used in lieu of a black marker as long the sticker is clearly visible. | Monthly |
| A first in, first out (FIFO) procedure is used for all dry food storage. | Monthly |
| All food is stored on clean shelving at least 6 inches off the floor. | Monthly |
| The temperature(s) of the dry storeroom(s) is between 50oF and 70oF and is clean, dry, and well-ventilated. | Daily |
| Food transferred from original containers is stored in durable, food-grade containers which are not stored in direct sunlight. | Monthly |
| Cleaning supplies and other chemicals are completely separated from all food, dishes, utensils, linens, and single-use items. | Monthly |
| Non-food supplies and chemicals are in their original containers. If not in the original container, the item is clearly labeled on the side of the holding container with the specific name of the contents (i.e. *Chlorine Bleach* solution, *QUATS solution* instead of *sanitizer*). Do not label the lid because lids are interchangeable. Some chemical suppliers provide labels. | Monthly |

|  |  |  |
| --- | --- | --- |
| Refrigerated Storage | | **MONITORING**  **FREQUENCY** |
| Food is stored using the criteria in Storage Guidelines for Specific Foods. | | Monthly |
| **USDA donated foods** – Label, using permanent black marker, with date received (month/year) in a conspicuous location on the case or a label. If food is taken out of the pallet or case, label using a permanent black marker, each individual can/container with the pack date (month/year) appearing on the case or label with the receipt date (month/year) if no pack date is available.  **Commercially packaged foods** – label, using permanent black marker, with date received (month/year) in a conspicuous location on the case or a label. If food is taken out of the pallet or case, label, using permanent black marker, every can/container with the receipt date (month/year).  **Produce –** label, using permanent black marker, with date received (month/day) in a conspicuous location on the case or package.  If foods have a firmly attached sticker from the vendor showing delivery date, this sticker may be used in lieu of a black marker as long the sticker is clearly visible. | | Monthly |
| A first in, first out (FIFO) procedure is used for all refrigerated food storage -- label in permanent black marker with date received (month/year) in a conspicuous location on the pallet, case, or package. For fresh produce, use FIFO and mark the date received in month/day format. | | Monthly |
| All food is stored on clean shelving at least 6 inches off the floor. | | Monthly |
| Food is stored to allow for good air circulation. Shelves are not lined with foil or other materials. | | Monthly |
| All food not stored in its original packaging is **c**overed, **l**abeled **a**nd **d**ated (CLAD). Proper food covering is a food-grade lid, plastic wrap, or aluminum foil. | | Monthly |
| A refrigerator thermometer is on the top shelf near the door of the refrigerator; this thermometer is in addition to a built in gauge as part of the unit. The ambient air temperature of the refrigerator is at 39°F or colder. The temperature of all time-temperature controlled for safety (TCS) food must be at 41oF or colder. The definition and examples of TCS foods are in: Time/Temperature Control for Safety Foods. | | Daily |
| ***CCP -- Cooked and ready-to-eat foods are stored above raw foods in the refrigerator. Foods are stored in this order:***   * ***Prepared or ready-to-eat food (top shelf)*** * ***Fish, seafood items, eggs*** * ***Whole cuts of raw beef and pork*** * ***Ground or processed meats*** * ***Raw and ground poultry (bottom shelf)*** | | Daily |
| Frozen Storage | | **MONITORING**  **FREQUENCY** |
| Food is stored using the criteria in Storage Guidelines for Specific Foods. | | Monthly |
| **USDA donated foods** – Label, using permanent black marker, with date received (month/year) in a conspicuous location on the case or a label. If food is taken out of the pallet or case, label using a permanent black marker, each individual can/container with the pack date (month/year) appearing on the case or label with the receipt date (month/year) if no pack date is available.  **Commercially packaged foods** – label, using permanent black marker, with date received (month/year) in a conspicuous location on the case or a label. If food is taken out of the pallet or case, label, using permanent black marker, each individual can/container with the receipt date (month/year).  If foods have a firmly attached sticker from the vendor showing delivery date, this sticker may be used in lieu of a black marker as long the sticker is clearly visible. | | Monthly |
| A first in, first out (FIFO) procedure is used for all frozen food storage.-- label in permanent black marker with date received (month/year) in a conspicuous location on the pallet. | | Monthly |
| All food is stored on clean shelving at least 6 inches off the floor. | | Monthly |
| All food not stored in its original packaging is **c**overed, **l**abeled **a**nd **d**ated (CLAD). Proper food covering is a food-grade lid, plastic wrap, or aluminum foil. | | Monthly |
| Freezers are defrosted according to manufacturer instructions. *NOTE: Manufacturer instructions should be available for all equipment.* | | Monthly |
| A freezer thermometer is placed near the front of the freezer on the top shelf; this thermometer is in addition to any built in gauge as part of the unit. If the thermometer has a probe, the probe should not touch the shelf. The ambient temperature is 0oF or colder unless the food requires a different storage temperature. | | Daily |
| Preparation - Ice | | **MONITORING**  **FREQUENCY** |
| Safe drinking water is used to make ice. | | Annually |
| Ice previously used to chill food or beverages is never used as a food ingredient. | | Monthly |
| A cleaned and sanitized container(s) and ice scoop(s) is used to dispense ice unless an automatic ice dispenser is available. | | Monthly |
| Transporting | **MONITORING**  **FREQUENCY** | |
| All delivery vehicles are properly cleaned and maintained. | Monthly | |
| The temperature of all TCS food is taken with a properly calibrated, cleaned and sanitized thermometer before it is loaded. | Daily | |
| Temperature of vehicles used to deliver food items to locations is as follows -- refrigeration vehicles at 41oF or colder and frozen storage vehicles at 0oF. | Daily | |
| All hot and cold holding equipment is properly cleaned and sanitized when it is returned to the facility. | Monthly | |
| All holding equipment is properly cleaned and sanitized before use. | Monthly | |
| Cleaning up Vomit or Fecal Events in the Food Storage Area | **MONITORING**  **FREQUENCY** | |
| Proper cleanup procedures, as defined in Best Practices for Body Fluid Cleanup in the Food Preparation or Serving Area, are followed after a potential norovirus (vomit or fecal) contamination event in the food storage, preparation, or service area. | As needed | |

## Criteria for Accepting or Rejecting a Food Delivery

|  |  |
| --- | --- |
| **FOOD** | Criteria to Accept Delivery |
| Refrigerated processed food | 41oF or colder.  Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  Not past dated. |
| Frozen food | Frozen rock solid and no water marks appear on the packaging.  Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  Not past dated. |
| Canned food | No swollen ends, leaks, rust, or dents.  Label can be read and is attached to the product.  No signs of tampering and/or counterfeiting.  Not past dated. |
| Dry foods | Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  No signs of pest infestation.  Not past dated. |
| Fresh produce | Clean and good condition and no signs of tampering and/or counterfeiting.  If produce is cut or processed, it is at 41oF or colder. |
| Dairy products | 41oF or colder.  Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  All products are pasteurized.  Not past dated. |
| Modified Atmospheric Packaging (MAP) | If the product requires refrigeration, it is at 41oF or colder.  Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  Labels can be read and attached to the product.  Not past dated. |
| Ultra High Temperature (UHT) | Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  If product requires refrigeration, it is at 41oF or colder.  Label is attached and can be read.  Not pasted dated. |
| Eggs | Shell eggs at 45oF or colder; liquid eggs at 41oF or colder.  Shell eggs -- clean and not cracked  Frozen, and dry eggs – pasteurized.  Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  Not past dated. |

|  |  |
| --- | --- |
| **FOOD** | Criteria to Accept Delivery |
| Baked goods | Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  Products are not moldy.  Not past dated. |
| Fresh meat and poultry | 41oF or colder.  Stamped with USDA inspection stamp.  Good color and no odor.  Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  Not past dated. |
| Fresh seafood | 41oF or colder.  Good color and no off-odors.  Packaging clean and in good condition and no signs of tampering and/or counterfeiting.  Not past dated. |

## Transportation Vehicle Criteria

|  |  |
| --- | --- |
| **TYPE OF FOOD BEING TRANSPORTED** | **TEMPERATURE DURING TRANSPORT** |
| Refrigerated foods | 41oF or colder |
| Frozen foods | 0oF or colder |
| Time-temperature controlled for safety (TCS) hot foods | 135oF or hotter |

## Storage Guidelines for Specific Foods

|  |  |  |
| --- | --- | --- |
| **Food** | **Temperature** | **Other Requirements** |
| Fresh meat | 41oF | Tightly wrap or place it in a deep container. |
| Fresh poultry | 41oF | Store ice-packed poultry in self-draining containers. Change ice often and sanitize the container regularly. |
| Fresh fish | 41oF | Tightly wrap or store in original packaging.  Before shipping, fish served raw or partially cooked must be frozen by the processor to -4oF or colder for seven days in a storage freezer or -31oF or colder for fifteen hours in a blast freezer. |
| Shell eggs | 41oF | Use within 4-5 weeks of the packing date. |
| Dairy | 41oF | Discard if past the use-by or expiration date. |
| Ice cream and frozen yogurt | 6oF-10oF | Discard if past the use-by or expiration date. |
| Fresh produce | Temperature varies | If delivered packed on ice, store the same way. |
| Modified Atmospheric Packaging (MAP), vacuum packed, and sous vide packaged food | 41oF | Discard if past the use use-by or expiration date. Read the label to determine if the product needs to be refrigerated. |
| Ultra High Temperature UHT products, aseptically packaged | 50oF-70oF | Once opened, store all ultra high temperature (UHT) products at 41oF or colder. Read the label to determine if the product needs to be refrigerated. |
| UHT products not aseptically packaged | 41oF | Store above raw foods. Read the label to determine if the product needs to be refrigerated. |
| Canned/dry food | 50oF-70oF | If removed from its original packaging, store in airtight, clearly labeled containers. |

## Recommended Shelf Life for Food Storage for Best Quality

The information contained below for storage times for dry, refrigerated, and frozen items are best practices and are based on evidence for peak product quality and are not always related to food safety. Over time, food quality will deteriorate as oxygen permeates the food. This oxygen will interact with fats and create rancid flavors and odors. In addition to rancidity, food components may separate and textures will change. The below dates are also based the assumption the integrity of the initial packaging is maintained (meaning the package has not been opened or torn). Resulting spoilage and/or oxidation may be perceived as a safety concern and lead to complaints from students and/or patrons. In addition to quality concerns, recall concerns may also arise if food is stored longer than the below table. As recalls are increasing and including multiple years of product, it is difficult to manage stored food inventory (based on supplier changes and lot codes) if items are stored longer than the bbest practices found in this table.

**Recommended Food Storage Chart for Dry Storage Items**

*Keep dry storage room temperature between 50 °F and 70 °F. Keep all dry food in original package or tightly closed airtight containers in a dry spot unless otherwise directed on label. Some food kept longer than recommended times may be useable but of inferior quality.*

|  |  |  |
| --- | --- | --- |
| **Food** | **Time** | **Special Handling** |
| Baking powder, soda | 18 months |  |
| Beverages, canned/bottled | 3 months |  |
| Bouillon cubes, powder | 1 year |  |
| Bread crumbs, dried | 6 months |  |
| Bread, rolls | 3 days | Freeze for longer storage; storing in refrigerator increases staling. |
| Cake mixes | 1 year |  |
| Cereals, ready-to-cook | 6 months |  |
| Cereals, ready-to-eat |  | Follow the “use by” date. |
| Chocolate, pre-melted | 2 years |  |
| Chocolate, semisweet | 2 years |  |
| Chocolate, unsweetened | 18 months |  |
| Coconut, canned | 1 year |  |
| Coffee lighteners, dry (opened) | 6 months |  |
| Coffee, instant (closed) | 6 months | Keep 2 weeks after opening. |
| Coffee, vacuum pack | 1 year | Refrigerate after opening. |
| Condensed and evaporated milk | 1 year | Refrigerate after opening. |
| Cookies, packaged | 4 months | Or follow the “use by” date. |
| Crackers | 3 months | Or follow the “use by” date. |
| Flour, cake or all purpose | 1 year |  |
| Flour, whole-wheat | 2-3 months | Keep refrigerated or freeze for longer storage. |
| Frosting, can or mix | 8 months |  |
| Fruits, canned | 1 year |  |
| Fruits, dried | 6 months |  |
| Gelatin, unflavored | 3 years |  |
| Gravies, canned | 1 year |  |
| Honey, jams, syrups | 1 year | 6-8 months after opening. |
| Hot pepper sauce, Worcestershire | 2 years |  |
| Ketchup, barbeque sauce, chili sauce, salsa | Follow the “use by” date. | Refrigerate after opening. |
| Mayonnaise | Follow the “use by” date. | Keep 2 months after opening. |
| Meat, fish, poultry, canned/pouch | 1 year |  |
| Metered-calorie products, instant breakfasts | 6 months |  |
| Molasses | 2 years |  |
| Nonfat dry milk | 6 months |  |
| Nuts | 9 months |  |
| Oil, salad | 3 months | Refrigerate after opening. |
| Pancake mix | 6 months |  |
| Pasta | 2 years |  |
| Peanut Butter | 6 months | Keep 2 months after opening. |
| Pickles, olives | 1 year |  |
| Potatoes, instant | 18 months |  |
| Pudding mixes | 1 year |  |
| Rice mixes | 6 months |  |
| Rice, brown or wild | 1 year |  |
| Rice, white | 2 years |  |
| Salad dressings (shelf stable) | 3 months | Refrigerate after opening. |
| Sauce, gravy, soup mixes | 6 months |  |
| Shortening, solid | 8 months |  |
| Soups, canned | 1 year |  |
| Soups, dried | 15 months |  |
| Spices/Herbs, ground | Replace herbs and spices when aroma fades or follow guidance from manufacturer. | Keep in cool storage area. Replace if aroma fades. I f spices are kept tightly closed and still have a good smell, they may impart favorable flavors to foods for 1 year or more.  Refrigerate red spices for increased shef life. |
| Spices/Herbs, whole |
| Sugar, brown or confectioners’ | 4 months |  |
| Sugar, granulated | 2 years |  |
| Tea, bags, loose | 18 months |  |
| Teas, instant | 2 years |  |
| Toaster pastries | 3 months |  |
| Vegetables, canned | 1 year |  |
| Vegetables, fresh (onions, potatoes, rutabagas, hard-shelled squash, sweet potatoes) | 1 week at room temperature | For longer storage keep at 50 to 60 °F. Keep dry, out of sun, loosely wrapped. |
| Whipped-topping mix | 1 year |  |

**Table 4: Recommended Shelf Life for Food Storage, continued**

**Recommended Food Storage Chart for Refrigerator Items**

Keep refrigerator temperature between 34 °F and 40 °F. If it rises above 40 °F, food quickly spoils. Except as noted in chart, wrap foods in foil, plastic wraps, or bags or place in airtight containers to keep food from drying out and odors from being transferred from one food to another. Some food kept longer than recommended times *may* be useable but of inferior quality.

|  |  |  |
| --- | --- | --- |
| **Food** | **Time** | **Special Handling** |
| Butter | 1-3 months |  |
| Buttermilk, sour cream, yogurt | 2 weeks |  |
| Cheese |  |  |
| Cheese, cottage, ricotta | 1 week |  |
| Cheese, cream, Neufchatel | 2 weeks |  |
| Cheese, hard or wax-coated —Cheddar, Edam, Gouda, Swiss, etc., large pieces  Unopened  Opened | 3-6 months  1-2 months | Keep all cheese tightly packaged in moisture resistant wrap. Shredded cheese tends to mold and dehydrate quicker than block cheese. |
| Cheese, Parmesan, grated  Unopened  Opened | 12 months  2-4 months |  |
| Cheese, Processed, opened | 1 month | Shredded cheese tends to mold and dehydrate quicker than block cheese. |
| Cream—light, heavy, half-and-half | 1 week | Keep tightly covered. |
| Dips, commercial | 2 weeks | Keep tightly covered. |
| Eggs, Shell | 1 month | Keep small end of egg down, to center yolks. |
| Eggs, Pasteurized, Whole, thawed | 24 hours | Thaw under refrigeration. |
| Fruit, fresh: Apples | 1 month | Do not wash before storing—moisture encourages spoilage. |
| Fruit, fresh: Apricots, avocados, bananas, melons, nectarines, peaches, pears | 5 days |  |
| Fruit, fresh: Berries, cherries | 3 days |  |
| Fruit, fresh: Citrus fruit | 2 weeks |  |
| Fruit, fresh: Grapes, plums | 5 days |  |
| Fruit, fresh: Pineapple | 2 days |  |
| Margarine | 4-5 months | One week for best flavor. |
| Meat, ground | 1-2 days |  |

|  |  |  |
| --- | --- | --- |
| Meat, Processed meats  bacon, frankfurters  luncheon meat, slices  sausage, fresh or smoked  hams (whole, halves)  hams, canned (unopened) | 1 week  5 days  2-3 days  1 week  6 months | Store in coldest part of refrigerator. Unopened vacuum packs keep about 2 weeks. |
| Meat, roasts, chops | 3-5 days |  |
| Meat, stew meat | 1-2 days |  |
| Milk, evaporated or condensed (opened) | 1 week |  |
| Milk, fluid | Use by expiration date. | For bulk containers, do not return unused milk to original container as this spreads bacteria back to remaining milk. |
| Milk, pasteurized, reconstituted nonfat dry | 1 week |  |
| Pickles, olives | 2-3 months |  |
| Poultry, Raw: chicken or turkey | 2 days |  |
| Sour Cream | 2 weeks | Keep tightly covered. |
| Vegetables, fresh: Asparagus | 3 days |  |
| Vegetables, fresh: Broccoli, Brussels sprouts, green onions, zucchini | 5 days |  |
| Vegetables, fresh: Cabbage, cauliflower, celery, cucumbers | Refer to footnote a in Table 2. |  |
| Vegetables, fresh: Carrots, parsnips | Remove any leafy tops before refrigerating. |
| Vegetables, fresh: Corn | 1 day | Leave in husk. |
| Vegetables, fresh: Eggplant, green beans, peppers, tomatoes | 1 week | If necessary, ripen tomatoes at room temperature away from light before refrigerating. |
| Vegetables, fresh: Lettuce, spinach, all leafy greens | 5 days | Rinse, drain before refrigerating. |
| Vegetables, fresh: Radishes, turnips | 2 weeks |  |
| Whipped topping, in can | 3 months |  |
| Whipped topping, prepared from mix | 3 days |  |

**Recommended Shelf Life for Food Storage, continued**

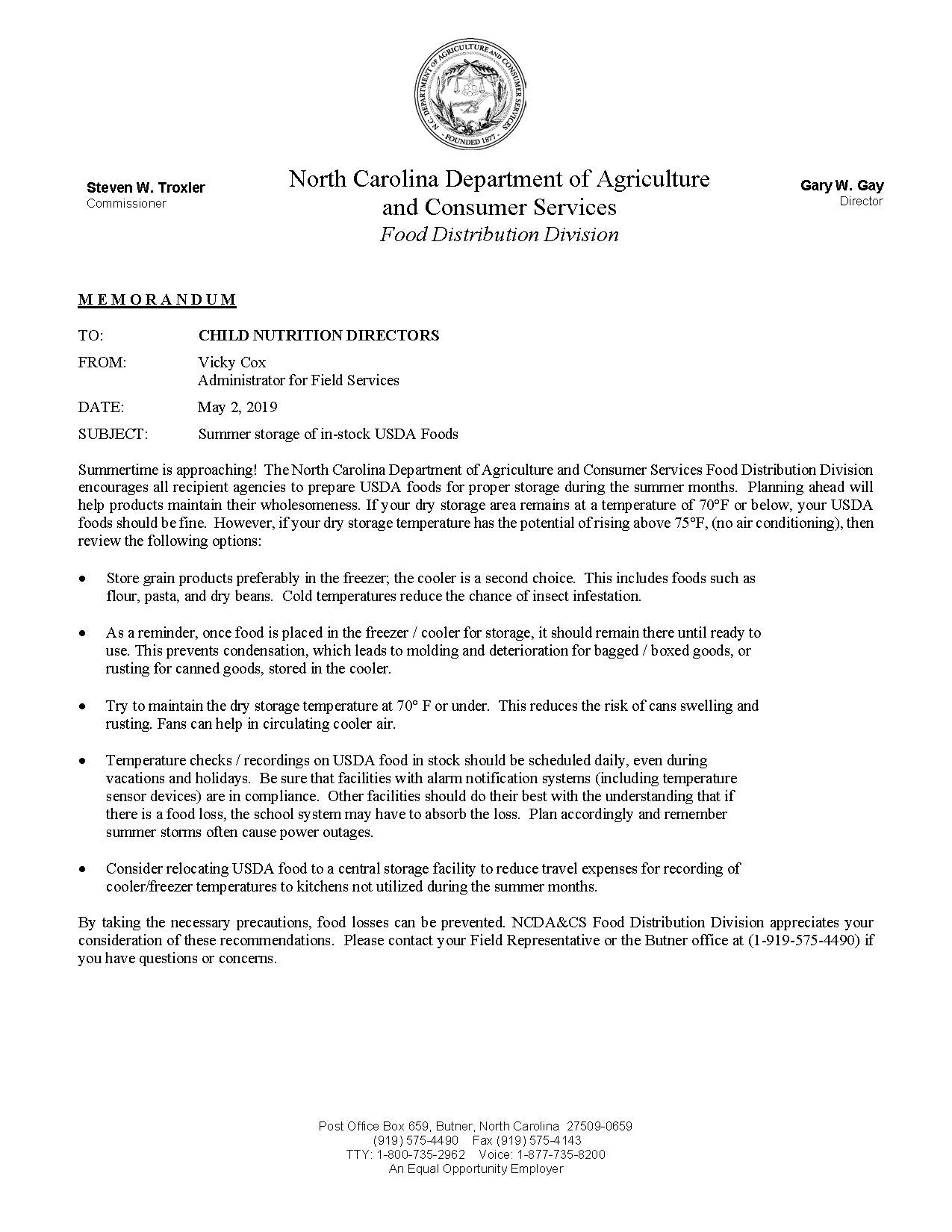
**Recommended Food Storage Chart for Freezer Items**

Keep freezer temperature at or below 0 °F. Some food kept longer than recommended times *may* be useable but of inferior quality.

|  |  |  |
| --- | --- | --- |
| **Food** | **Time** | **Special Handling** |
| Breads, baked, commercial | 3 months |  |
| Breads, baked, in house | 4 weeks |  |
| Breads, unbaked dough | Follow “use by” date |  |
| Butter, margarine | 9 months |  |
| Cakes, baked | 3 months |  |
| Cheese, natural, hard | 6 months | Texture may be crumbly when thawed. |
| Cookies, baked, dough | 3 months |  |
| Doughnuts, pastries | 3 months |  |
| Eggs, Pasteurized, frozen | 1 year |  |
| Fish, breaded, cooked | 3 months |  |
| Fruit | 1 year |  |
| Ice cream, sherbet | 1 month |  |
| Juices, concentrates | 1 year |  |
| Meat and Poultry, Processed, IQF (Patties, nuggets, etc.) | 3 months |  |
| Meat, frankfurters | 1-2 months |  |
| Meat, ground, stew | 4 months |  |
| Meat, roasts, chops, steaks | 4-8 months |  |
| Nuts | 3 months |  |
| Pies, fruit | 8 months |  |
| Pizza, frozen | 2 months |  |
| Poultry, raw, chicken, turkey  Whole  Parts | 1 year  6 months |  |
| Poultry, turkey rolls, roasts | 6 months |  |
| Pre-prepared foods, in house | 4 weeks | Refer to Part 5: *Menu and Recipes* for additional information. |
| Variety meats | 4 months |  |
| Vegetables | 1 year |  |
| Vegetables, frozen | 1 year |  |

Reference: <http://www.clemson.edu/extension/hgic/food/food_safety/handling/hgic3522.html>

## Summer Storage of USDA Donated Foods Memorandum



## Time/temperature Control for Safety (TCS) Foods

All food can cause foodborne illness, so all food must be handled safely from the time it is received until the time it is served. TCS foods are those able to support the growth of bacteria. To control for bacterial growth, one needs to:

* cook foods to proper temperatures
* keep foods hot (135oF or hotter)
* keep foods cold (41oF or colder), and
* minimize time in the temperature danger zone.

The FDA Food Code, the basis of the NC School HACCP Plan, identifies TCS foods as raw or cooked animal foods (meat, fish, poultry, dairy, eggs); heat treated plant foods (cooked vegetables, baked potatoes, texturized vegetable protein); cut melon; cut tomatoes; cut leafy greens; garlic-in-oil which has not been acidified; and raw bean sprouts. TCS foods may be held for service using temperature keeping them below 41°F or above 135°F. Alternately, they may be held using time without temperature control as the public health control (TPHC) for a working supply of TCS food before cooking, or for ready-to-eat TCS food displayed or held for sale or service.

**ANIMAL FOODS**

Raw meat, fish, poultry, and unpasteurized shell eggs must be cooked to proper endpoint cooking temperatures before serving. All commercially processed meat, fish, poultry, egg products, which are often labeled "Fully cooked") need to be cooked to 135oF or hotter before serving. Milk and milk products must be stored at 41oF or colder.

**FRUITS**

Most fruits are not TCS foods because of their low pH. Figs and melons only become TCS foods after they are cut or in the case of figs, when they are heated. Cut melons must be held at 41oF or colder for safety. If figs are cooked, they must be cooked to 135°F, held at 135°F, and if leftover, properly cooled, labeled, and used within 72 hours of preparation. If not used within 72 hours, they must be discarded.

Non-TCS fruits do not need to be refrigerated for safety. They are refrigerated to extend their shelf life. However, some fresh fruits *may* have a water activity or acidity level inadequate to assure a product assessment is not needed to show they are safe; therefore, as best practice, it is recommended to keep all cut fruits at 41oF or colder to increase appeal, shelf life, and safety.

(NOTE: Technically cooked fruits *may* contain adequate sugar and/or acidity to prevent harmful bacteria growth; however, it is difficult to determine the final water activity or pH level when various ingredients are added. It is unlikely the SFA will provide for the laboratory analysis for a product assessment; therefore, in the absence of adequate information to prove otherwise, cooked fruits are to be held at a safe temperature or follow an approved TPHC procedure as a precaution.)

Commercially canned fruit is generally NOT considered a time-temperature controlled for safety food because of its low pH and so does not require strict time and temperature for safety. The only exceptions would be if using low-acid canned fruits such as canned figs, dates, mangoes, papaya, persimmons, etc. Items such as these are classified as low-acid foods and so must be maintained at 41°F or colder for safety.

If low acid fruits are added to commercially canned high-acid fruits, the resulting fruit mixture should be considered a TCS food (i.e. bananas added to canned peaches or fruit cocktail).

It is also important to remember canned fruit has been heat processed and there is a minimal food safety hazard unless contamination takes place after the can is opened. Contamination could result if bare hands contact the exposed fruit, if somebody sneezes or coughs in it, or if dirty holding containers and utensils are used to display and dispense this product.

**VEGETABLES/PLANT FOODS**

Most vegetables are not TCS foods until they are heated and hot-held (exceptions are cut fresh tomatoes, lettuce, spinach, cabbage, salad greens, and sprouts which must be held at a safe temperature). In our schools, all cooked vegetables are TCS foods because they are heated and then placed in a hot holding cabinet or on a hot serving line. All cooked vegetables must be heated to 135oF or hotter and held at 135oF or hotter. If leftover, they must be properly cooled, labeled, reheated, and served within 72 hours. If not used within 72 hours, they must be thrown out. If vegetables are held using TPHC, follow the written procedures exactly.

Canned low-acid vegetables are TCS foods and once opened, should be held at 135oF or hotter if cooked or at 41oF or colder if used in recipes such as marinated salads.

Some fresh cut vegetables *may* have a pH and water activity level inadequate to ensure food safety. It is unlikely SFAs will conduct product assessments to determine this information; therefore, as best practice, it is *recommended* to hold all cut fresh vegetables at 41°F. or colder or follow an approved TPHC procedure to preserve quality.

* **Tomatoes.** Cut fresh tomatoes will support the growth of *Salmonella* as demonstrated with recent outbreaks. Whole tomatoes do not need to be received or stored at refrigeration temperatures; however, once cut, they must be kept at 41oF or colder. Cooked tomatoes are TCS foods and must be cooked to 135oF or hotter and held at 135oF or hotter. If canned tomatoes are cooked for hot holding, they must be cooked to 135oF or hotter. If canned tomatoes are not cooked and mixed with other non-TCS foods, they are not considered TCS food.
* **Lettuce, Spinach, Cut Salad Greens, Leafy Greens.** Lettuce and all other cut salad greens such as spinach, leafy greens, etc. are now considered TCS foods; therefore, all fresh cut salad greens must be kept at 41oF or colder. (Note: cutting includes a cut stem.) As per the 2017 Food Code, the term “leafy greens” includes iceberg lettuce, romaine lettuce, leaf lettuce, butter lettuce, baby leaf lettuce (i.e., immature lettuce or leafy greens), escarole, endive, spring mix, spinach, cabbage, kale, arugula and chard. The outbreaks during previous years were due to the presence of *E. coli* O157:H7 on the outside of the spinach due to environmental contamination. For packaged salad greens, if the bag states the produce is washed and ready to use, no further washing is required. Cooked cabbage and spinach must be heated to 135oF or hotter and held at 135oF or hotter.

**OTHER PLANT FOODS**

Baked potatoes, sweet potatoes, cooked rice, cooked pasta, cooked pinto beans, other cooked beans, texturized soy protein, canned low-acid vegetables, and all other heat-treated plant foods are also classified as TCS foods. These foods must be cooked to 135oF or hotter and held at 135oF or hotter.

**Peanut Butter:** Peanut butter is not a TCS food because of its low water activity; therefore, peanut butter and jelly sandwiches do not need to be refrigerated. If using commercially prepared, packaged peanut butter sandwiches, follow the manufacturer’s recommendations for storage and holding.

**Garlic-in-oil:** Most North Carolina schools are not using garlic-in-oil as an ingredient. However, if you should use garlic-in-oil, purchase a commercially processed product listing acid as an ingredient.

**Raw bean sprouts:** Purchase bean sprouts only from an approved supplier. When received, store at 41oF or colder.

## Calibrating Thermometers – In-House

Accurate temperature readings are critical to the success of a HACCP Plan; therefore, all thermometers, including those used to measure food temperatures and those used to measure air temperature, must be calibrated on a scheduled basis to determine how accurate the thermometer is reading temperatures. Calibration is the process of verifying the accuracy of a thermometer.

**Calibrating Food Thermometers (Bimetallic or Metal-stem Thermometers)**

Read the manufacturer instructions to determine how to calibrate your thermometers. Some types must be returned to the manufacturer to be calibrated. Calibrate all food thermometers at least once a day or every time it is dropped.

Two accepted methods for calibration are the boiling-point method and ice-point method. Both are described below.

***Boiling-point method (This method can only be used if your elevation is 1,000 feet or less. If you do not know your elevation, it is best to check the accuracy of your thermometers using the ice-point method.)***

1. Boil clean tap water in a deep pot.
2. Put the thermometer stem or probe into the boiling water so the sensing area is completely submerged.
3. Wait 30 seconds or until the indicator stops moving.
4. If the temperature is at 212oF then remove the thermometer. It is ready for use.
5. If the temperature is not at 212oF, hold the calibration nut securely with a wrench or other tool and rotate the head of the thermometer until it reads 212ºF or the appropriate boiling-point temperature for your elevation.

***Ice-point method***

1. Fill a large container with crushed or chipped ice.
2. Add water slowly until it overflows.
3. Add more ice until it is packed tightly to the bottom of the container, allowing excess to overflow. The water should not rise more than about ¼ inch over the top of the ice.
4. Insert the stem of the thermometer at least two inches into the container and allow it to stabilize for 5 minutes or until the indicator stops moving. Note: It is important to prevent the tip of the thermometer from touching the bottom or sides of the container.
5. If the temperature is at 32oF, remove the thermometer. It is ready for use.
6. If the temperature is not at 32oF, then hold the calibration nut securely with a wrench or other tool and rotate the head of the thermometer until it reads 32ºF.
7. If you are using a digital thermometer, refer to the manufacturer instructions to determine how to calibrate your thermometers. Some types must be returned to the manufacturer to be calibrated.

## Measuring Food Temperatures

Temperature readings will only be correct if the thermometer is placed in the proper location in the food. If not inserted correctly, or placed in the wrong area, the reading on the food thermometer will not accurately reflect the internal temperature of the food. In general, place the food thermometer in the thickest part of the food, away from bone, fat, or gristle. Temperatures of intact packages of refrigerated products may be taken by “sandwiching” the thermometer probe between two packages of product.

Before using a food thermometer, read the manufacturer's instructions. The instructions should tell how far the thermometer must be inserted in a food to give an accurate reading. If instructions are not available, check the stem of the food thermometer for an indentation, or "dimple." This shows one end of the location of the sensing device. Dial thermometers must be inserted about 2 to 3 inches into the food. For most digital thermometers, one only needs to a small area of the tip to get an accurate reading. Clean and sanitize the stem of your thermometer before use. Clean and sanitize between checking temperatures of various foods to avoid cross-contact for allergens.

## Best Practice Procedures for Body Fluid Cleanup in the Food Preparation or Serving Area

*It’s an unpleasant situation but it happens: a student or staff member vomits in or near the food preparation or service area. Is it norovirus? It’s difficult to know for sure but we must assume the cause was the virus which can be spread easily, stays on surfaces for weeks, and it takes just a microscopic particle to cause illness. Below are the recommended best practice procedures to minimize the risk of a widespread outbreak.*

1. Always keep on hand enough quantities of the following items needed to assemble and immediately re-stock a Body Fluid Cleanup Kit:

* Ethanol based hand sanitizer (62% Ethanol, FDA compliant)
* Waterproof container in appropriate size to store personal protective and cleaning equipment
* Personal protective equipment (PPE):
  + Disposable, non-latex gloves. Gloves should be vinyl or nitrile (rubber), and non-powdered and supplied in various sizes.
  + Disposable gown or apron, and shoe covers
  + Face mask with eye protection, or goggles
* Cleaning supplies:
  + Sand, or liquid spill absorbent material
  + Disposable flat-edge scoop, or equivalent (e.g., dustpan, shovel)
  + Plastic garbage bags and twist-ties
  + Liquid soap
  + Disposable paper towels
  + Disposable mop head
* Disinfecting supplies:
  + Bucket designated for chemical use
  + Spray bottle
  + Household bleach, unscented or other approved chemical for norovirus control
  + Measuring spoon (tablespoon) and cup (1 cup) not used for food preparation
  + Disposable paper towels
  + Disposable mop head
  + Plastic garbage bags and twist-ties

1. Define the area of contamination and the area to be disinfected, at least a 25 feet radius from the source. Close or block off the affected area(s) using the “Caution - Wet Floor” signs, caution tape or safety cones until the cleanup procedure is completed.
2. The soil (vomit or fecal matter) should be treated as potentially infectious material. All individuals in the immediate area should be cleared along with securing the area prior to and during cleanup. Also, assess the overall area of contamination and increase the radius to be cleaned and disinfected based on factors such as velocity and direction of air movement; potential foot traffic through affected areas prior to securing.
3. Prevent foot traffic of staff and/or students until cleanup procedures and disinfection has been completed.
4. Cleanup staff member(s) should wear personal protective equipment (PPE) including:

* Eye protection
* Disposable gloves (vinyl, latex or rubber)
* Disposable mask
* Disposable plastic apron

The cleanup should be performed by staff not involved in food preparation if at all possible.

1. Follow the cleanup procedures:

* Cover the soiled areas immediately with a disposable cloth or paper towels to minimize potential aerosol spread of contaminants.
* Prepare a disinfectant solution of chlorine bleach (made from 5.25% sodium hypochlorite bleach) mixed with water at 1000 to 5000 ppm concentration (3/4 cup bleach per 1 gallon of water will make a solution of about 3000 ppm). Alternately, use another EPA registered (against norovirus) cleaning chemical mixed and applied per the manufacturer’s instructions.
* Use absorbent, paper towels, etc. to soak up excessive soil caused by vomitus and/or feces. Carefully transfer these and any solid matter into a plastic bag by folding it on itself and placing the waste materials into a plastic bag and then place inside of another bag (double bag procedure). Apply the disinfectant solution over absorbent materials and seal bag(s).
* Apply the disinfectant solution to all surfaces within defined contamination areas (equipment, floors, walls, etc. within the approximate 25 feet radius). Avoid application of disinfectant solution via excessive force or focused stream (i.e., power washer or hose with sprayer handle) to prevent aerosolizing any virus particles.
* Work from the perimeters of the room or affected area towards either the center of contamination site or a floor drain.
* For floor surfaces, generously apply the disinfectant solution with a disposable towel or mop head, keeping surfaces wet per the manufacturer’s label then allowing surfaces to air dry. Disassemble all exposed food preparation or serving equipment within potential contamination area and apply the disinfectant solution. Allow the surfaces to remain wet for the contact time recommended on chemical manufacturer’s label instructions.
* Discard any open or exposed food items and single service items within the contamination area. For those items discarded, place food and containers into a trash bag, seal, and then place into outside dumpster. This waste should not pass through the food preparation area on the way to the dumpster.
* Bag, seal, and discard all disposable cleaning equipment (i.e., mop heads, gloves, aprons), exposed to the initial contamination or used during cleanup. The disposable cleaning materials and waste should not pass through the food preparation area on the way to disposal.
* Use tools, such as mops, buckets, and cloths, which are not used in the permitted food establishment for regular kitchen cleaning for the norovirus clean up tasks. Disinfect any tools or other non-disposable items used in the cleanup (i.e., mop buckets, handles) using a disinfectant solution of chlorine bleach (made from 5.25% sodium hypochlorite bleach) mixed with water at 1000 to 5000 ppm concentration (3/4 cup bleach per 1 gallon of water will make a solution of about 3000 ppm). Alternately, use another EPA registered (against norovirus) cleaning chemical mixed and apply per the manufacturer’s instructions. The non-disposable cleaning tools should not return to the storage area by passing through the food preparation area.
* For staff involved in the clean-up, immediately after cleanup procedures are completed, thoroughly wash face and hands (giving extra attention between fingers and under fingernails) using soap and defined handwashing procedures.
* Prepare a 200-ppm chlorine bleach solution for post cleanup. A 200-ppm solution can be prepared by mixing approximately 1 tablespoon of chlorine bleach per gallon of water. Use test strips to verify proper concentration of prepared solution.
* For food contact surfaces, which were disinfected, rinse the surface and resume routine cleaning and sanitizing procedures using the 200-ppm chlorine bleach solution.
* For non-food contact surfaces, resume routine cleaning and sanitizing procedures.

1. Reopen the affected area after natural drying of treated surfaces has occurred being sure to follow manufacturer’ instructions for the correct amount of contact time for the chemicals used.
2. Restock and store the clean-up kit for future use.

Employees directly involved with clean-up activities should closely monitor their health for potential signs and symptoms of norovirus illness up to 72 hours after cleaning the affected areas. This is important to further control the potential for “secondary” transmission if infected employees were to handle food after contracting a norovirus infection. Report any symptoms to the person in charge (PIC) of the food establishment using the employee health policy guidelines.

## Guidelines for Food Safety in Power Outages

A power outage may occur during a seasonal storm such as a tornado or flood, or may simply be caused by work being done on electric lines. Whatever the cause, the following recommendations apply to food safety in power outages.

SAFETY RECOMMENDATIONS

* **Use a Thermometer:** Keep an appliance thermometer in the refrigerator and freezer at all times to see if food is being stored at safe temperatures (34 to 41 °F for the refrigerator; 0 °F or below for the freezer). The key to determining the safety of foods in the refrigerator and freezer is how cold they are. Most foodborne illnesses are caused by bacteria which multiply rapidly at temperatures above 41 °F.
* **Leave the Freezer Door Closed as much as possible:** A full freezer should keep food safe about two days; a half-full freezer, about a day. Consider powering by generator if it appears the power will be off for an extended time. You can safely refreeze thawed foods still containing ice crystals or feel cold to the touch. When in doubt, measure the temperature of the food to make sure it is below 41 °F.
* **Refrigerated Items:** These foods should be safe as long as the power outage is not extended. Discard any perishable food having been above 41 °F for two hours or more and any food having an unusual odor, color or texture. Leave the door closed as much as possible; every time you open it, needed cold air escapes, causing the foods inside to reach unsafe temperatures.
* If it appears the power will be off for extended periods, transfer refrigerated perishable foods to another facility/refrigerated truck or use a generator to supply power. Keep a thermometer in the cooler to be sure the food stays at 41 °F or below.
* **Never Taste Food to Determine Its Safety:** Some foods may look and smell fine, but if they’ve been at room temperature longer than two hours, bacteria able to cause foodborne illness can begin to multiply very rapidly. Some types will produce toxins, which are not destroyed by cooking and can possibly cause illness.

Reference:

<https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/emergencies/keep-your-food-safe-during-emergencies>

### Power Outage Chart

Use the following charts to decide which foods are safe when the power is restored.

**Frozen Foods**

|  |  |  |
| --- | --- | --- |
| **When to Save and When to Throw It Out** |  |  |
| **Food** | **Still contains ice crystals and feels as cold as if refrigerated** | **Thawed.**  **Held above 45°F for over 2 hours** |
| **MEAT, POULTRY, SEAFOOD**  Beef, veal, lamb, pork, and ground meats, Poultry and ground poultry, casseroles, stews, soups | Refreeze | Discard |
| Fish, shellfish, breaded seafood products | Refreeze. However, there will be some texture and flavor loss. | Discard |
| **DAIRY**  Milk, Cheese (soft and semi-soft) | Refreeze. May lose some texture. | Discard |
| Eggs (out of shell) and egg products | Refreeze | Discard |
| Ice cream, frozen yogurt | Discard | Discard |
| Hard cheeses | Refreeze | Refreeze |
| Shredded cheeses, Casseroles containing milk, cream, eggs, soft cheeses, Cheesecake | Refreeze | Discard |
| **FRUITS**  Juices | Refreeze | Refreeze. Discard if mold, yeasty smell, or sliminess develops. |
| Home or commercially packaged or blanched. | Refreeze. Will change texture and flavor. | Discard if mold, yeasty smell, or sliminess develops. |
| **VEGETABLES**  Juices | Refreeze | Discard after held above 41ºF for 6 hours. |

**Frozen Foods, continued**

|  |  |  |
| --- | --- | --- |
| **When to Save and When to Throw It Out** |  |  |
| **BREADS, PASTRIES**  Breads, rolls, muffins, cakes (without custard fillings)  Cakes, pies, pastries with custard or cheese filling  Pie crusts, commercial and homemade bread dough | Refreeze  Refreeze  Refreeze. Some quality loss may occur. | Refreeze  Discard  Refreeze. Quality loss is considerable. |
| **OTHER**  Casseroles – pasta, rice based | Refreeze | Discard |
| Flour, cornmeal, nuts | Refreeze | Refreeze |
| Breakfast items –waffles, pancakes, bagels | Refreeze | Refreeze |
| Frozen meal, entree, specialty items (pizza, sausage and biscuit, meat pie, convenience foods) | Refreeze | Discard |

**Refrigerator Foods**

|  |  |
| --- | --- |
| **When to Save and When to Throw It Out** |  |
| **FOOD ITEM** | **Held above 41 ºF for over 2 hours** |
| **Hard Cheeses**  Cheddar, Colby, Swiss, Parmesan, provolone, Romano, Grated Parmesan, Romano, or combination (in can or jar) | Safe |
| **Soft Cheeses**  blue/bleu, Roquefort, Brie, Camembert, cottage, cream, Edam, Monterey Jack, ricotta, mozzarella, Muenster, Neufchatel, Queso blanco fresco, Processed Cheeses, Shredded Cheeses, Low-fat Cheeses | Discard |
| **DAIRY**  Milk, cream, sour cream, buttermilk, evaporated milk, yogurt, eggnog, soy milk  Butter, margarine | Discard  Safe |
| **FRUITS**  Fresh fruits, cut | Discard |
| Fruit juices, fresh fruits, coconut, raisins, dried fruits, candied fruits, dates | Safe |
| **VEGETABLES**  Fresh mushrooms, herbs, spices, raw vegetables | Safe |
| Cut salad greens, melons, or tomatoes; tofu, commercial garlic in oil, Potato Salad | Discard |
| **EGGS**  Fresh eggs, hard-cooked in shell, egg dishes, egg products, Custards and puddings | Discard |
| **MEAT, POULTRY, SEAFOOD**  Meat, poultry, fish, or seafood; soy meat substitutes, gravy, stuffing, broth, lunchmeats, hot dogs, bacon, sausage, dried beef | Discard |
| **SAUCES, SPREADS, JAMS**  Opened mayonnaise, tartar sauce, horseradish | Discard if above 50 °F for over 8 hrs. |
| Peanut butter, Jelly, relish, taco sauce, mustard, catsup, olives, pickles, Worcestershire, soy, barbecue, Hoisin sauces, Opened vinegar-based dressings | Safe |
| **BREAD, CAKES, COOKIES,PASTA, GRAINS**  Bread, rolls, cakes, muffins, quick breads, tortillas, Breakfast foods –waffles, pancakes, bagels | Safe |
| Refrigerator biscuits, rolls, cookie dough, Cooked pasta, rice, potatoes, Pasta salads with mayonnaise or vinaigrette, Fresh pasta, Cheesecake | Discard |
| **PIES, PASTRY**  Pastries, cream filled, Pies – custard, cheese filled, or chiffon; quiche | Discard |
| Pies, fruit | Safe |

References:

<https://hgic.clemson.edu/category/emergency/>

<https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/emergency-preparedness>

## Standard Operating Procedure for Responding to Food Recalls



Reference: Responding to a Food Recall, Instititute of Child Nutrition

## Food Product Dating

**What is Food Product Dating?**Two types of product dating may be shown on a product label. "Open Dating" is a calendar date applied to a food product by the manufacturer or retailer. The calendar date provides consumers with information on the estimated period of time for which the product will be of best quality and to help the store determine how long to display the product for sale. “Closed Dating” is a code consisting of a series of letters and/or numbers applied by manufacturers to identify the date and time of production.

**Does Federal Law Require Dating?**Except for infant formula, product dating is not required by Federal regulations. For meat, poultry, and egg products under the jurisdiction of the Food Safety and Inspection Service (FSIS), dates may be voluntarily applied provided they are labeled in a manner which is truthful and not misleading and in compliance with FSIS regulations. To comply, a calendar date must express both the month and day of the month. In the case of shelf-stable and frozen products, the year must also be displayed. Additionally, immediately adjacent to the date must be a phrase explaining the meaning of the date such as "Best if Used By."

**What Date-Labeling Phrases are Used?**  
There are no uniform or universally accepted descriptions used on food labels for open dating in the United States. Thus, there are a wide variety of phrases used on labels to describe quality dates. Best practice recommendation is to use products by the dates recommended from the manufacturer for optimal quality.

Examples of commonly used phrases:

* A **"Best if Used By/Before"** indicates when a product will be of best flavor or quality. It is not a purchase or safety date.
* A **"Sell-By"** date tells the store how long to display the product for sale for inventory management. It is not a safety date.
* A **"Use-By"** date is the last date recommended for the use of the product while at peak quality. It is not a safety date except for when used on infant formula.

**Are Dates for Food Safety or Quality?**Manufacturers provide dating to help consumers and retailers decide when food is of best quality. If foods are mishandled, before or after the date on the package, bacteria, including pathogenic bacteria which can cause foodborne illness, can quickly multiply. Except for infant formula, dates are not an indicator of the product’s safety and are not required by Federal law.

Federal regulations require a "Use-By" date on the product label of infant formula under inspection of the U.S. Food and Drug Administration (FDA). Consumption by this date ensures the formula contains not less than the quantity of each nutrient as described on the label. Formula must maintain an acceptable quality to pass through an ordinary bottle nipple. The "Use-By" date is selected by the manufacturer, packer or distributor of the product based on product analysis throughout its shelf life, tests, or other information. It is also based on the conditions of handling, storage, preparation, and use printed on the label. Do not buy or use baby formula after its "Use- By" date.

**What Do Can Codes Mean?**Packing codes are a type of closed dating which enable the tracking of product in interstate commerce. These codes also enable manufacturers to rotate their stock and locate their products in the event of a recall.

Codes appear as a series of letters and/or numbers and refer to the date the product was canned. The codes are not meant for the consumer to interpret as a "Best if Used By" date.

Cans must exhibit a code or the date of canning. Cans may also display "open" or calendar dates. Usually these are "Best if Used By" dates for peak quality. Discard dented, rusted, or swollen cans. High-acid canned foods (e.g. tomatoes and fruits) will keep their best quality for 12 to 18 months. Whereas, low-acid canned foods (e.g. meats and vegetables) will keep for two to five years. Additional information on the handling of shelf stable foods may be found at <https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/shelf-stable-food>.

**Bar Codes**  
A Universal Product Code (UPC) is a type of barcode appearing on packages as black lines of varying widths above a series of numbers. They are not required by regulation, but manufacturers print them on most product labels because scanners at supermarkets can "read" them quickly to record the price at checkout. UPC codes are also used by stores and manufacturers for inventory purposes and marketing information. When read by a computer, a UPC can reveal such specific information as the manufacturer's name, product name, size of product and price. The numbers are not used to identify recalled products.

A Stock Keeping Unit (SKU) code is a number assigned to a product by a company or retailer for stock-keeping purposes and internal operations. The same product may have different SKUs if sold by different companies or retailers.

Reference: <https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/food-product-dating>

# **Corrective Actions**

Although the HACCP plan is intended to prevent deviations from the standards outlined in *Prerequisite Programs* and *Safe Food Handling* sections, perfection is rarely achieved. Therefore, there must be a plan to help decide what to do when you the standards are not fully met. These are called “corrective actions.”

The Food Safety Team Leader is in charge of correcting the problem; however, sometimes employees must correct problems and so they must also know about corrective actions and what actions are appropriate to take.

|  |  |
| --- | --- |
| Corrective Actions for Prerequisite Programs | |
| Facilities | 1. If deviations in the facility structure are noted, contact your School Nutrition Director or your Area Supervisor to determine to whom the repair request should be sent. 2. Follow up if repairs are not completed in a timely manner. |
| Equipment – selection and installation | 1. Re-educate any employee who is not following the procedures for this standard. 2. If deviations are noted, contact your School Nutrition Director or your Area Supervisor to determine to whom the repair request should be sent. 3. Other than the exceptions noted in *Part 1: Prerequisite Programs*, discontinue use of equipment which is not approved by American Natational Standards Insitute (ANSI) |
| Equipment – Maintenance | 1. Re-educate any employee who is not following the proper procedures for maintaining equipment. 2. For an inaccurate, bimetallic-dial-faced thermometer adjust the temperature by turning the dial while securing the calibration nut (located just under or below the dial) with pliers or a wrench. 3. For an inaccurate, digital thermometer with a reset button, adjust the thermometer according to manufacturer’s instructions. If it cannot be adjusted, purchase a new thermometer. 4. If an inaccurate thermometer cannot be adjusted on-site, do not use it. Follow the manufacturers’ instructions for having the thermometer calibrated. If it cannot be calibrated, throw out the defective thermometer. 5. Notify the School Nutrition Administrator if the Equipment Maintenance Schedule is not followed. |
| Employees – Health | 1. Re-educate any employee who is not following the procedures outlined under Employees – Health in *Part 1: Prerequisite Programs* and the Employee Health Policy. 2. Immediately send home, any warehouse employee who is working and has been diagnosed with typhoid fever (caused by *Salmonella* Typhi), *Shigella*, *E. coli* O157:H7, norovirus, Hepatitis A or *Salmonella (nontyphoidal)*. 3. If an employee exhibits symptoms of vomiting, diarrhea, fever, jaundice or sore throat and has handled food, all exposed food they handled must be thrown out. |
| Employees – Appearance | 1. Re-educate any employee who is not following the procedures outlined in Employees – Appearance. |
| Employees – Handwashing | 1. Re-educate any employee who is not following the proper procedures for washing their hands. 2. Throw out all food handled with improperly washed hands. |
| Employees – Other Hygienic Practices | 1. Re-educate any employee who is not following the procedures for this prerequisite program. 2. Throw out all improperly handled food. |
| Continuing Education and Professional Development | 1. Schedule educational sessions as soon as possible for those who have not been properly educated about food safety. Check with your School Nutrition Administrator for educational opportunities. Refer to educational resources on the School Nutrition Division website. |
| Pest Control | 1. Re-educate any employee who is not following the procedures for this prerequisite program. 2. Discard any food contaminated by chemicals. 3. Label and/or properly store any unlabeled or misplaced chemicals. |
| Hazard Communications | 1. Re-educate any employee who is not following the procedures for this prerequisite program. |

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| --- | --- |
| Corrective Actions for Safe Food Handling Procedures | |
| Purchasing and Receiving | 1. Re-educate any employee who is not applying the purchasing and receiving standards. 2. Contact your School Nutrition Director or your Area Supervisor to determine how to handle rejected foods. |
| Dry Storage | 1. Re-educate any employee who is not following the storage standards. 2. Throw out food in storage not meeting the storage standards. |
| Refrigerated Storage | 1. Re-educate any employee who is not following the refrigerated storage standards. 2. Throw out food having been at a temperature of greater than 41oF for more than four hours. 3. If the food has not been at 41oF for more than four hours, cook it immediately and properly cool or freeze. 4. If the refrigerator is not at 39oF or colder, adjust the thermostat immediately. 5. Throw out cooked or ready-to-eat foods having been stored below raw meat, fish, or poultry. |
| Frozen Storage | 1. Re-educate any employee who is not following the frozen storage standards. 2. Throw out food having been at a temperature of greater than 41oF for more than four hours. 3. If the food has not been at 41oF for more than four hours, cook it immediately and properly cool or freeze in a properly working cold-holding unit. 4. If the freezer is not at 0oF or colder, adjust immediately. |
| Preparation – Ice | 1. Re-educate any employee who is not following the procedures for preparing ice. 2. Discard ice touched with bare hands. |
| Transporting | 1. Re-educate any employee who is not following the procedures for transporting food. 2. Continue heating or chilling food carrier if the proper air temperature is not reached. 3. Reheat food to 165oF for 15 seconds if the internal temperature of hot food is less than 135oF. 4. Cool food to 41oF or colder using a proper cooling procedure if the internal temperature of cold food is greater than 41oF. 5. Discard TCS foods held in the temperature danger zone for more than four hours. |