



HACCP in Your School Central Warehouse



**North Carolina Department of Public Instruction
Safe and Healthy Schools Support Division
School Nutrition Services Section**

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HACCP in Your School: Central Warehouse Participant Manual

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WHY HACCP?

Food borne illness is more common than most people realize. Approximately 48 million people get sick each year with food borne illness in the United States. That is about one in every six Americans. Improper hygiene practices or eating contaminated food or drink is what causes most cases of food borne illness. Although any food can cause food borne illness, time/temperature control for safety (TCS) foods are of concern because they are low acid, moist, and contain protein. To prevent food borne illness you must handle TCS and non-TCS foods safely.

It is also important to remember that anybody can get sick if they eat contaminated food, but some people are more susceptible than others. Infants, preschool age children, pregnant women, older adults, and the immunocompromised are more likely to become ill if exposed. They are also more likely to develop complications that may be very serious or even fatal.

The good news is that you can reduce the likelihood of food borne illness by handling food safely from the time it is received until the time it is served. The main causes of food borne illness are: food from unsafe sources, inadequate cooking, improper holding temperature, contaminated equipment, and poor personal hygiene. Temperature abuse occurs when a TCS food is between 41°F and 135°F for four hours or longer. The temperature range between 41°F and 135°F is called the temperature danger zone. When food is in this temperature range, harmful bacteria can grow rapidly, multiply, and possibly cause food borne illness. Cross contamination can occur when bacteria are transferred from one food to another if food is not properly stored. As an example it is important to store raw food below cooked or ready-to-eat food and properly cover foods during storage.

Knowledge about safe food handling does not prevent food borne illness, applying safe handling practices does!

EMPLOYEE POLICIES

The first step in preventing food borne illness is to make sure that you are healthy and that you use good hygiene practices when you are at work. Potentially harmful microorganisms that can cause food borne illness might be on your skin. Therefore, bathe or shower before coming to work each day, keep your hair clean and properly covered, and keep your fingernails clean and cut short. How you dress also plays an important role in preventing food borne illness. Dirty clothes can be a source of harmful microorganisms.

Practice good personal hygiene.

Washing hands frequently and properly during food preparation is very important. Keep your clothes clean and your nails short. Never work with food if you are sick as you can spread illness easily when sick.

- **Follow the uniform policy** – wear approved uniform, wear protective gear such as closed/steel-toed boots, back braces, and gloves
- **Wear clean clothing** – if you can, put your work clothes on when you arrive at work.
- Keep your hair and nails well groomed and trimmed.

Hands

Hands, like gloves and dirty clothes, can also contaminate food. To prevent this:

- **Keep fingernails clean and cut short** – long fingernails are more difficult to keep clean
- **Do not wear nail polish** – it can hide dirt under nails

- **Do not wear false nails** – difficult to keep clean and can break off into food
- **Do not wear jewelry on hands and arms** – Only plain wedding bands are allowed
- **Cover cuts and sores on hands with a bandage** – always wear a glove to keep the bandage dry and prevent it from falling into food

To wash hands properly:

- Wet hands with water at a hand sink.
- Apply hand soap.
- Scrub for at least 10-15 seconds, while cleaning under fingernails and between fingers.
- Rinse thoroughly under running water.
- Dry with a single-use paper towel or warm-air hand dryer.
- Use the paper towel to turn off the water faucet and to open the bathroom door when returning to work.
- The entire process should take at least 20 seconds.

Always wash hands after:

- Using the restroom.
- Handling raw meat, fish, or poultry (before and after).
- Touching your hair, face, body, clothing or apron.
- Sneezing, coughing, or using a tissue.
- Smoking, eating, or drinking.
- Handling cleaning/chemicals supplies
- Taking out the garbage.
- Remember that hand sanitizers are not a replacement for effective and proper hand washing.

When you get sick

Never handle food when you are sick because you could contaminate food and make others sick. This is especially critical if you have been diagnosed with a food borne illness. Never work with food if you have a food borne illness! Also, tell your manager if you are sick or are not feeling well. And always let your manager know if you have:

- Vomiting from infectious condition
- Diarrhea from infectious condition
- Sore throat with fever
- Been diagnosed with *Shigella*, Norovirus, *E. coli*, or Hepatitis A.
- Onset of jaundice (yellowing of the skin and eyes) within 7 days
- Been diagnosed with Salmonella Typhi or Nontyphoidal Salmonella within past three months
- Infected cuts or wounds, or lesions containing pus on the hand, wrist, and exposed body parts (*such as boils and infected wounds, however small*).

Note: Diarrhea and vomiting from *noninfectious* conditions do not apply to this policy. Noninfectious conditions include, but are not limited to, morning sickness, ulcers, motion sickness, gallbladder disease, food intolerances, celiac disease, Ulcerative Colitis, Crohn's Disease, Irritable Bowel

Syndrome, necrotizing enterocolitis, diverticulitis, and some forms of cancer.

You should also notify the manager whenever diagnosed by a healthcare provider as being ill with any of the 'Big Six' illnesses that can be transmitted through food or person-to-person by casual contact such as: Norovirus, Salmonella Typhi (typhoid fever), *Shigella* species infection, *Escherichia coli* infection (*E. coli* O157:H7 or other EHEC/STEC infection), Nontyphoidal Salmonella, or Hepatitis A virus.

In addition to the above conditions, notify the manager if you have been exposed to the following high-risk conditions:

- Exposure to or suspicion of causing any confirmed outbreak involving the above illnesses
- A member of your household is diagnosed with any of the above illnesses
- A member of your household is attending or working in a setting that is experiencing a confirmed outbreak of the above illnesses

If you become sick at work, your manager might ask you to stop working or designate you to perform a task away from food products. **Remember** – sick employees can contaminate food and make others sick.

School Nutrition Food Employee/Conditional Employee Health Policy Agreement

Reporting: Symptoms of Illness

I agree to report to the manager or Person in Charge (PIC) when I have:

1. Diarrhea
2. Vomiting
3. Jaundice (yellowing of the skin and/or eyes)
4. Sore throat with fever
5. Infected cuts or wounds, or lesions containing pus on the hand, wrist, and exposed body part (*such as boils and infected wounds, however small*).

Note: Diarrhea and vomiting from noninfectious conditions do not apply to this policy; however, a physician should make the diagnosis of the noninfectious condition causing the diarrhea and vomiting and the employee should provide written documentation to the manager or PIC that the condition is noninfectious.

Reporting: Diagnosed "Big Six" Illnesses

I agree to report to the manager or PIC when I have been diagnosed with:

1. Norovirus
2. *Salmonella* Typhi (typhoid fever)
3. *Shigella* spp. infection
4. *E. coli* infection (*Escherichia coli* O157:H7 or other EHEC/STEC infection)
5. Hepatitis A
6. Nontyphoidal *Salmonella*

Note: The **manager or PIC must report to the Health Department** when an employee has one of these illnesses.

Reporting: Exposure of "Big Five" Illnesses

I agree to report to the manager or PIC when I have been exposed to any of the illnesses listed above through:

1. An outbreak of Norovirus, typhoid fever, *Shigella* spp. infection, *E. coli* infection, or Hepatitis A, nontyphoidal *Salmonella*.
2. Living with or caring for someone who has been diagnosed with Norovirus, typhoid fever, *Shigella* spp. infection, *E. coli* infection, or Hepatitis A, nontyphoidal *Salmonella*.
3. A household member attending or working in a setting with an outbreak of Norovirus, typhoid fever, *Shigella* spp. infection, *E. coli* infection, or Hepatitis A virus, nontyphoidal *Salmonella*.

Exclusion and Restriction from Work

If you have any of the symptoms or illnesses listed above, you may be **excluded*** or **restricted**** from work.

**If you are excluded from work you are not allowed to come to work.*

***If you are restricted from work you are allowed to come to work, but your duties may be limited.*

Returning to Work

If you are excluded from work for having symptoms of diarrhea and/or vomiting, you will not be able to return to work until **24 hours have passed** since your last episode of diarrhea and/or vomiting or you provide medical documentation from a physician.

If you are excluded from work for exhibiting symptoms of a sore throat with fever or for having jaundice (yellowing of the skin and/or eyes), Norovirus, *Salmonella* Typhii (typhoid fever), *Shigella* spp. infection, *E. coli* infection, and/or Hepatitis A virus, nontyphoidal *Salmonella*, you will not be able to return to work until **medical documentation from a physician is provided**.

If you are excluded from work for having been exposed to Norovirus, *Salmonella* Typhii (typhoid fever), *Shigella* spp. Infection, *E. coli* infection, and/or Hepatitis A virus, nontyphoidal *Salmonella*, you will not be able to return to work until the following post-exposure times: 48 hours for Norovirus; 3 days for *E. coli* or *Shigella*; 14 days for *Salmonella* Typhii or nontyphoidal *Salmonella*; and 30 days for Hepatitis A virus or if cleared after a Igg vaccination.

Agreement

I understand that I must:

1. Sign this agreement annually.
2. Report when I have or have been exposed to any of the symptoms or illnesses listed above; and
3. Comply with work restrictions and/or exclusions that are given to me.

I understand that if I do not comply with this agreement, it may put my job at risk.

Employee Name (printed)	Employee Signature	Date
4		

THERMOMETERS

Another major cause of food borne illness is temperature abuse of time/temperature control for safety (TCS) foods. To prevent temperature abuse, minimize the time that TCS food is in the temperature danger zone by:

- Checking the temperature of refrigerators, freezers, and dry storage areas daily.
- Recording temperature observations on the appropriate monitoring form.
- Checking the temperature of TCS food during storage.

Many thermometers used for storage areas cannot be calibrated or adjusted so they should be replaced if it is determined that they are not registering an accurate temperature. Check for accuracy by verifying the reading compared to another thermometer that is known to be accurate.

Calibration

The only way to properly check temperatures is to use an accurate thermometer. Check the accuracy of all food thermometers on a daily basis and calibrate as needed. You can use one of two methods to check the accuracy of your food thermometers. The most commonly used method is the ice-point method.

Immerse the stem of the thermometer in a container of crushed ice and cold water and wait about 30 seconds. The thermometer should read 32°F at sea level (adjust based on altitude). If it does not, it needs to be adjusted. The second method uses boiling water. Boil water and then immerse the stem of the thermometer in the water. Be very careful when using this method so that you do not burn yourself. The reading should be 212°F at sea level (adjust based on altitude). If it does not, then adjust the thermometer so that it does or replace if adjustment is not possible. Use of digital self-calibrating thermometers is highly recommended.

Notes

RECEIVING

It is important to receive food products from safe and approved sources and suppliers that meet pertinent laws and regulations. To confirm this, you must inspect all food deliveries before placing in storage. Good receiving practices include:

- Organizing storage space before deliveries arrive
- Checking the delivery schedule
- Determining the condition of delivery vehicle (clean, in good repair, proper temperature, no insects, no rodent droppings, and no meat juices on the floor)
- Reconciling the amount of product received with the amount of product ordered

Inspect food items to minimize the risk for food borne illness and liability.

- Insert a food thermometer between 2 packaged refrigerated products to check the temperature.
- Make sure frozen products are “rock hard”.
- Check dates of perishable goods.
- Mark with date of receipt or use by date.

Inspect deliveries for

- Proper receiving temperature
- Tampering, discoloration, pinholes, or packages/containers that leak
- Missing labels
- Out of date or very closely dated stock
- Mold on produce or baked goods
- Contamination due to rodent activity or insects

Unloading food items

- Unload frozen items first, refrigerated items second, and dry goods last.
- Reject substandard food items by following the local policy. Use the table on the following page as a reference for receiving safe stock.
- Keep a record of rejected food items.
- Take photos if necessary.

FOOD	Criteria to Accept Delivery
Refrigerated and frozen processed food	41°F or colder; if frozen, the product is rock solid. Packaging clean and in good condition and no signs of tampering and/or counterfeiting. Not past dated.
Frozen Foods	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 41°F or colder.
Dairy Products	41°F 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 41°F 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 41°F or colder. Label is attached and can be read. Not past dated.
Eggs	Shell eggs at 45°F or colder; liquid eggs at 41°F 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.
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	41°F 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	41°F 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.

Application Exercises

Accept or Reject

Directions: Mark with a “√” which of the following foods should be accepted and with an “X” if the food should be rejected.

- _____ Ten pound package of ground beef that is gray in color
- _____ Two cartons of shell eggs that are at 50°F
- _____ Twenty-five pound bag of flour with a small tear in the bottom corner
- _____ Case of canned corn, one can is slightly dented but the dent is not on the seam
- _____ Two (one-gallon) containers of milk that have a sell-by date of yesterday
- _____ Case of frozen pizzas that have thawed completely
- _____ Packaged lettuce that is in a clean, labeled bag

Test Your Knowledge – True or False

- T** **F** Shell eggs that are at 46°F are safe to accept.
- T** **F** You can accept dented cans as long as the dent is only on the seam.
- T** **F** Meat that is brown in color is okay to accept because it will be cooked.
- T** **F** Check the temperature of every carton of milk before putting into storage.
- T** **F** If a frozen food is rock hard, it can be put in the freezer.
- T** **F** Watermarks on a container of frozen food is a sign of temperature-abuse.

FACILITIES AND STORAGE

When food is not properly stored or it is not used in a timely manner, it could become unsafe to eat. Unsafe storage temperatures also create conditions that allow harmful bacteria to grow. Unsafe storage practices could make food unsafe to eat.

Food labels

- Do not remove the labels from commercially processed food. If removed, label the container with the name of the contents.
- Date food items with the month and year. Place a date label on each warehouse pallet and label individual cases if they are stored off the pallet.
- Fresh produce should be dated with month and day

Safe storage guidelines

- Follow First In, First Out (FIFO) procedures, rotating products to ensure that the oldest food is used first
- Discard food that is past dated according to locally approved procedures.
- Store food in designated areas away from walls and at least six inches above the floor.
- Keep all storage areas clean, dry, well ventilated, and at the proper storage temperatures.
- Clean all storage areas on a regular schedule.

Frozen storage

- Place a freezer thermometer near the front of the freezer.
- Keep the freezer door closed as much as possible.
- Keep the temperature at 0°F or colder and check temperature daily.
- Place frozen food deliveries in the freezer as soon as they have been inspected.
- Do not overload freezers and store food to allow for good air circulation.
- If necessary, defrost freezers regularly. Frost should not exceed ¼ inch.

Refrigerated storage

- Place a refrigerator thermometer near the front of the refrigerator.
- Keep the refrigerator door closed as much as possible
- Keep temperature at 39°F or colder and check temperature daily.
- Do not line shelves with foil or other materials because this prevents good air circulation.
- Store food to allow for good air circulation.
- Store raw foods below cooked or ready-to-eat foods.

Dry storage

- Maintain optimal temperature between 50°F and 70°F and check daily.
- If possible, maintain humidity levels between 60% and 70%.
- Keep dry food out of direct sunlight.
- Monitor dry storage areas for water or pests.

Chemical storage

- Store cleaning supplies and other chemicals separate from all food.
- Keep cleaning supplies and chemicals in their original containers.
- If cleaning supplies and chemicals are not in their original containers, clearly label the side of the holding container with the name of the contents. Do not label the lid because lids may be interchangeable.
- Keep Material Safety Data Sheets (MSDS) in the chemical storage area. It is recommended to highlight the name of the chemical and first aid procedures for quick reference in an emergency.

Material Safety Data Sheets (MSDS)

- Occupation Safety and Health Administration (OSHA) requires an MSDS for all hazardous chemicals used in the operation. The MSDS provides information about the chemicals that you are using. It also gives details about how to store and handle these chemicals properly.
- On every MSDS, be familiar with the following sections:
 - 4.0 Fire and explosion data
 - 5.0 Reactivity data
 - 6.0 Spill or leak procedures
 - 7.0 Health hazard data
 - 8.0 First aid
 - 9.0 Protective measures
 - 10.0 Additional information

It is recommended to highlight the name of the chemical and the first aid procedures on the MSDS for quick reference in an emergency.

First In, First Out (FIFO)

Past-dated food will lose its quality and sometimes become unsafe over time. First in, first out is one way to prevent this. When foods are received, put the oldest in the front and the newest in the back. Throw out foods that are past-dated.

Salvaged or Recalled Items

Salvaged or recalled items should be placed in a separate and clearly marked storage area until proper arrangements for disposal, return, or credit. Employees should be taught proper procedures for handling and removal of salvaged, recalled, expired, damaged, or contaminated foods. Take care that damaged or recalled items are disposed of in a manner that will not allow re-entry into any other food supply chain (i.e. dumpster diving). Document any actions taken when disposing of items.

Preventing cross-contamination during storage

When harmful microorganisms are transferred from one thing to another, cross-contamination has occurred. If you are not careful, it can happen very easily during storage. For example, cross-contamination can take place when raw food (like chicken) touches or drips onto a ready-to-eat food (like lettuce). Or, it can happen when food is stored in a container that has not been properly cleaned and sanitized. To prevent cross-contamination during storage:

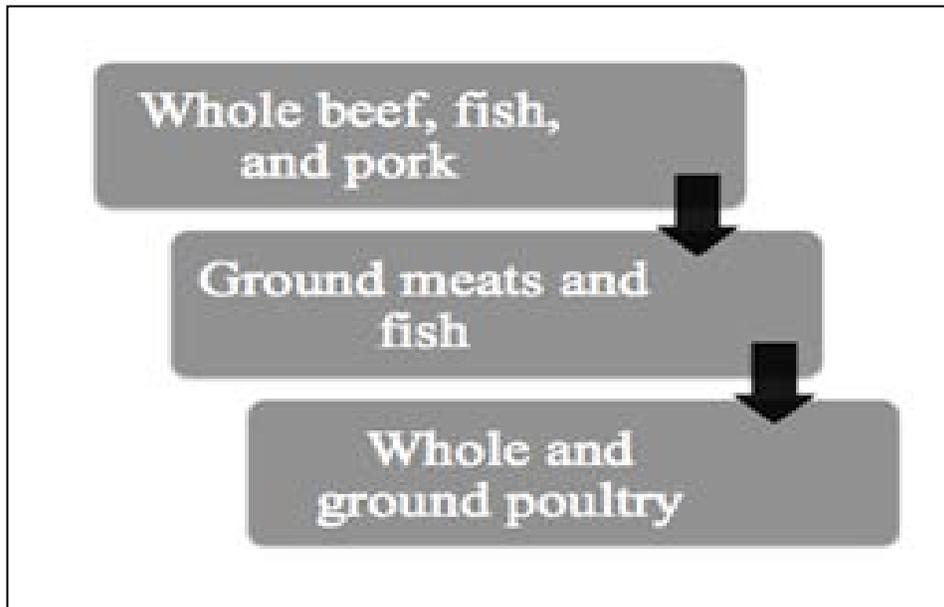
- **Store food in designated storage areas**
 - keep food away from chemicals or cleaning supplies, garbage, and furnace rooms. Never store under stairways and pipes.

- **Store raw meat, fish and poultry separately from prepared and ready-to-eat food** - if these items cannot be

stored separately, store raw foods below ready-to-eat food.

Store raw meat, fish, and poultry in the following top to bottom order in the refrigerator:

1. Whole fish, beef, and pork
2. Ground meats and fish
3. Whole and ground poultry



The chart below shows optimal storage temperatures for a variety of foods.

Storage Temperature for Select Foods	
Food	Temperature (°F)
Fresh produce	Varies
Canned, dry, UHT foods	50-70
Raw meat, poultry, fish	41
Shell eggs, dairy	41
Reduced oxygen packaged (ROP) foods	41
Frozen dairy products	6-10

The daily warehouse assessment form helps determine compliance with many of the requirements discussed in this section.

Daily Warehouse Assessment										September			2012	
Date	Observer Initials	Handsink #1			Handsink #2			Wipe/Spray on sanitizer	Personnel	Thermometers Calibrated Accurately	General Cleaning			Corrective Actions
		Wipes (F)	Soap	Towels	Wipes (F)	Soap	Towels	(ppm)			Trash and can liners Y or N	Floors Y or N	Surfaces Y or N	
9/1														
9/2														

Notes

Application Exercises

Organize this Refrigerator

Directions: Organize your refrigerator so that each food is protected from cross-contamination. To help you do so, identify which of the following foods are “**RAW**” or ready-to-eat “**RTE**”. Then organize all foods in the refrigerator.

- _____ Ground turkey
- _____ Chopped lettuce
- _____ Shell eggs
- _____ Leftover spaghetti and meat sauce
- _____ Fresh tomatoes
- _____ Tuna salad
- _____ American cheese slices
- _____ Raw chicken pieces

SHIPPING

Proper loading and transporting of food is important to maintain the cold chain, safety, and quality of the product.

Pre-Loading Process

- Check to make sure truck is clean and remove any debris
- Turn on cooler at least 45 minutes prior to loading
- Sort and stage items to be loaded

Loading

- Chock vehicle wheels
- Load dry products first followed by refrigerated and then frozen items, unless otherwise instructed
- Arrange the load to minimize damage and movement during transportation

Unloading

- Route to minimize travel time to minimize temperature abuse
- Use a multi-stop delivery process
- Schedule delivery when kitchen staff are available to receive product
- Unload efficiently with hand trucks
- Wear hair restraint when entering an area where food is being prepared or served
- Store all product in appropriate location to prevent cross contamination

Catering

- Handle prepared food to minimize contamination and meet temperature requirements during transportation
 - Maintain vehicles in clean, sanitary condition
 - Keep cold foods cold $\leq 41^{\circ}\text{F}$
 - Keep hot foods hot $\geq 135^{\circ}\text{F}$
 - Store foods properly upon arriving at the feeding location

EQUIPMENT

Equipment can serve as a source of contamination if not properly maintained and cleaned on a scheduled basis. Transport vehicles should be regularly maintained so that they are functioning properly and can maintain the proper temperature.

Preventive maintenance

Preventive maintenance tasks for your facility may include:

- Cleaning condensers of refrigeration and freezer units
- Defrosting freezer units
- Oiling and lubricating moving parts of equipment.
- Changing HVAC Filters if applicable
- Schedule Fire suppression/extinguisher system inspection
- Check cords and plugs for equipment operated by electricity
- Maintenance of transport vehicles and equipment

Discuss maintenance tasks with employees/departments or with contracted services. It is important to discuss when or how often the tasks should be performed (specific dates or frequency) and designate specific responsibilities. For convenience, an equipment preventive maintenance schedule form like the one below is included in the Central Warehouse HACCP Plan template.

Equipment Preventive Maintenance Schedule

Equipment to be inspected for preventive maintenance	Who will perform the maintenance	Planned Date or Frequency of Preventive Maintenance

INTEGRATED PEST MANAGEMENT

Pests, such as insects and rodents, can contaminate food supplies as well as damage your facilities. It is important to eliminate conditions that allow pests to live and breed. Pests also contribute to food borne illness and other diseases. Pesticides are often used to control pests but pesticides alone are not the solution. A better solution is to have an integrated pest management program (IPM) as part of your food safety program. IPM minimizes reliance on chemical pesticides. The two basic rules of an IPM program are to deny pests food and shelter and to work with a licensed pest management professional (PMP) to:

- Prepare a map of all pest management traps, interior and exterior
- Use rodent traps in and near the garbage areas.
- Use trapping devices or other means of pest control.

General

- Keep work/storage areas and floor drains clean and free of debris.
- Cover windows and vents with at least a 16-mesh wire screening.
- Cover cracks and gaps at all exterior doors and walls.
- Caulk and seal areas surrounding wiring and drainpipes, vents, and flues.
- Clean compressor motors, such as those on refrigerators and freezers, as they are prime areas for roaches because they have ideal temperatures for breeding.
- Inspect storage areas routinely. Look for rodent or cockroach droppings or other evidence of pest activity.

- Keep the building exterior and perimeter clean and free of clutter and debris.

Garbage Areas

Garbage is a breeding place for harmful microorganisms and insects, and can serve as food for rodents. Ideally, at least one garbage can in each work area is available and all should have lids. The lid does not have to be on a garbage can while it is in use. Constantly taking off a lid and putting it back on is not a sanitary practice, so wash hands each time this takes place; therefore, it is best to keep the lids off of the can while it is in constant use.

To prevent other problems associated with garbage and trash:

- Use plastic liners for garbage cans to make it easier to keep clean.
- Wash garbage cans inside and out with warm, soapy water monthly or more often if badly soiled. Allow them to drain and dry.
- Keep areas surrounding garbage cans clean.
- Throw out garbage frequently and properly.
- Store recyclables in clean, pest-proof containers.
- Keep the dumpster and dumpster pad area cleaned and make sure dumpster drains are plugged.
- Keep dumpster lids closed.

Pests associated with stored food

These pests can include moths and beetles that feed on and contaminate stored grain products, such as, flour and rice, as well as processed foods such as cereals and baked goods. Again, the best control is prevention. Inspect all incoming items for the presence of pests, throw away and clean up all spilled or contaminated items promptly, and keep the surroundings clean. Use FIFO as a storage method as old stock is more likely to become infested. Adequate ventilation is necessary to reduce moisture levels. While prevention is the best control measure, existing infestations are best treated by discarding infested items,

cleaning up the area, and notifying a trained PMP of the problem.

Using and storing pesticides

- Keep pesticides in their original containers. Never store pesticides in old food containers.
- Store pesticides in locked cabinets away from areas where food is stored.
- Check with your local Cooperative Extension or state regulatory agencies about the proper method for disposing of old or excess pesticides.
- Keep a copy of the corresponding product labels and Material Safety Data Sheets in your establishment.
- Keep records of any pesticides applied in your facility.

Notes

SANITATION

Cleaning and sanitizing is a part of your food safety program. Improperly cleaned and sanitized surfaces allow harmful microorganisms to be transferred from one food to other foods.

- **Cleaning** – removing dirt from surfaces. To do so, one uses a cleaning agent such as solvent cleaners, acid cleaners, and abrasive cleaners.
- **Sanitizing** – reducing harmful microorganisms that are on a properly cleaned surface to a safe level. To do so, one uses a chemical solution that is an approved sanitizing agent according to the

Food and Drug Administration Food Code. Sanitizing agents only work when the surface has been properly cleaned and rinsed.

Measuring sanitizing concentration

A test kit that accurately measures the concentration of sanitizing solutions must also be available and used. The strength of sanitizing solutions must be measured frequently. Use the test strips provided for the specific type of chemical used.

Cleaning Schedule and Procedures

Item	Daily	Monthly
Floors	Mop with all purpose cleaner	Mop with degreaser
Freezer, Walk In	Wipe clean exterior with cleaner	Transfer food to another freezer, remove shelves and defrost, clean shelves, interior walls, floor, gaskets with cleaner, turn on and wipe dry, Do not flush with water
Hand Sink	Spray outside, inside and around facet area with cleaner and wipe clean	Spray under lip of sink and surrounding wall areas, back splash, pipes, etc. with cleaner and wipe clean
Ice Machine	Spray outside with cleaner and wipe clean. Clean and sanitize ice scoop	Unplug and remove loose ice from bins. Wash inside with cleaner and rinse thoroughly with water and re-plug.
Refrigerator, Walk In	Wipe exterior door handle with detergent and wipe clean with clean cloth	Wash shelves, walls, doors, latch, hinges, floor and air curtain with cleaner and rinse with water
Storeroom and shelving	Clean up spills immediately	Organize, dust cans, exposed shelves and pallets surfaces, rotate stock (FIFO)
Trash cans	Empty and rinse with warm water and replace liners	Scrub inside, outside, handles and base with cleaner and stiff brush, rinse with clean water and turn upside down to drain.
Utility carts/dollies	Wipe top, sides, handles, ledges, shelves, under shelves, and wheel with cleaner and rinse	Scrub top, sides, handles, ledges, shelves, under shelves, and wheel with cleaner and stiff brush, and rinse with warm water
Transport vehicles	Perform a walk around the vehicle prior to service, verify trucks are clean and at the proper temperature	Check refrigeration units and perform detailed cleaning and maintenance as required

Notes

FOOD DEFENSE

Food defense is protecting food from intentional contamination. This can be in the form of a disgruntled current or former employee, or members of terrorist or activist groups posing as: cleaning crew, contractors, truck drivers, visitors, or utility representatives. Food defense deals with limiting access to products, understanding what might happen, monitoring who has access to food, and identifying vulnerabilities and implementing solutions.

Exterior Security Measures

- Provide adequate lighting around the outside of building
- Account for all keys to establishment
- Lock doors, gates, roof access, and windows
- Keep emergency exits accessible only from the interior
- Limit access to the loading dock
- Prevent environmental contamination and infestation by insects or vermin

Interior Security Measures

- Account for all keys to storage and office areas
- Provide adequate lighting
 - Emergency lighting and alert system
- Check and report suspicious packages
 - Be alert to items in bathrooms, closets, etc.
- Control access to cleaning supplies, pest control chemicals and other hazardous material

Personnel Security Measures

- Restrict entry to the establishment
 - Require proof of identity
 - Escort visitors
- Identify employee vehicles and inspect lockers
- Teach employees about emergency evacuation procedures
 - Include a map and meeting location to account for all employees

Incoming shipments

- Restrict access to loading docks
- Check all deliveries against the roster of scheduled deliveries
- Segregate goods to be returned and maintain records

HANDLING A FOOD RECALL

A food recall occurs when there is reason to believe that a food may cause consumers to become ill. A food recall can be initiated by a Food manufacturer or distributor, or a Government agency (USDA or FDA). Food recalls can be caused by: Discovery of an organism in a product, discovery of a potential allergen in a product and mislabeling or misbranding of food. All recall information can be found on the FDA website <http://www.fda.gov/safety/recalls/default.htm>.

Food recall issued

1. Review the food recall notice and follow specific instructions
2. Communicate the food recall notice to school cafeterias (via email, phone, etc.) and inform the entire staff
3. Hold and segregate the recalled product (including open containers, leftovers, etc.)
4. Mark recalled product '**Do Not Use**' and '**Do Not Discard**'
5. Identify and record if any of the product was received in your SFA and locate the implicated product by cafeteria site
6. Verify that the food item bears the product identification code and production date listed in the recall notice
7. If recalled food is found, inform your SFA's public relations coordinator
8. Obtain accurate count of the recalled product from every cafeteria site, including the amount remaining in inventory and amount used
9. Account for all recalled product by verifying inventory counts against food receiving records at the feeding site
10. Notify school nutrition staff of procedures, dates, and directions to be followed for the collection or destruction of recalled product
11. Consolidate the recalled product as quickly as possible, but no later than 30 days after the recall notification
12. Destroy USDA food only when provided official written notification from NCDA, USDA FSIS, or State/Your County health department

Follow the recall notice

1. Report quantity and site of product location to manufacturer, distributor, or NCDA for collection.
 - USDA food information must be submitted to NCDA within 10 days of recall
2. Obtain necessary documents from NCDA for USDA foods
3. Complete and maintain all required documentation related to the recall including
 - Recall notice
 - Records of how food product was returned or destroyed
 - Reimbursable costs
 - Public notice and media communications
 - Correspondence to and from the public health department and NCDA

POWER OUTAGE

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 any type of power outage.

Refrigerator Procedures

- Note the time the outage occurred
 - Leave the door closed
 - When open needed cold air escapes, allowing the foods inside to reach unsafe temperatures
 - Move food to another walk-in refrigerator or obtain a refrigerated truck if possible
 - Never transfer food to private homes
 - Food should be safe as long as the power is out no more than about 4 to 6 hours
- Move food to another walk-in freezer or obtain a refrigerated truck if possible when outages are projected to be than 1 to 3 days
 - With the door closed, food in most freezers will stay below 41°F for up to 3 days
 - Full freezer should keep food safe about 2 days
 - Half-full freezer, about 1 day
 - Ice or dry ice may be used to keep TCS foods at 41°F or below
 - Never transfer food to private homes
 - Safely re-freeze thawed foods that still contain ice crystals and are 41°F or less (although quality may not be optimal)
 - Discard TCS foods that are above 41 degrees for more than 4 hours

Freezer Procedures

Freezing does not kill microorganisms, but it does slow their growth. During a power outage, frozen food can begin to thaw, resulting in the outer surface warming up and allowing harmful microorganisms to grow.

The time it takes for food to thaw depends on:

- Amount of food in the freezer
- Kind of food
- Temperature of the food
- Size and insulation of freezer

Follow these procedures to keep frozen food safe:

- Leave the freezer door closed

Power Restoration

Once power is restored, check the internal food temperatures using a food thermometer and record the temperature. Identify and discard TCS foods that have been above 41°F for 4 hours. Never taste food to determine its safety as 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. If practical, separate packages of food in refrigeration units and freezers to allow for faster re-cooling. The refreezing of food may affect the quality and should be used within a short period of time.

Remember....Knowledge about safe food handling does not prevent food borne illness, applying safe handling practices does! Apply what you have learned at your warehouse.



Food Safety and HACCP Information

- **Prepared by:**
 - Benjamin Chapman, Ph.D., Assistant Professor/Food Safety Specialist
 - Audrey Kreske, Ph.D., Extension Associate, 2012
Department of 4-H Youth Development and Family & Consumer Sciences
- **Revised by:**
 - Susan Thompson, MS RDN LDN, NCDPI School Nutrition Services, 2014

Pest Control Information Prepared by:

Michael Waldvogel, Ph.D., Extension Assoc. Professor & Structural & Industrial Pests Specialist, 2012, Department of Entomology, NC State University, Raleigh, NC 27695-7605

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For more information, contact Dr. Ben Chapman at 919-515-8099 or at benjamin_chapman@ncsu.edu

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