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# **FOOD SAFETY TRAINING COURSEBOOK**

**Camden County Department of Health and  
Human Services**

**Division of Environmental and Consumer Health Services**

DiPiero Center, Suite 301

512 Lakeland Road

Blackwood, NJ 08012

856-374-6052

856-374-6211 Fax

[bwatson@camdencounty.com](mailto:bwatson@camdencounty.com)



# CHAPTER 24 (N.J.A.C. 8:24)

## *Sanitation in Retail Food Establishments and Food Beverage Vending Machines*

Effective Date: January 2, 2007

### MAJOR CHANGES

**Refrigeration temperatures** – 41°F or less for all new establishments and new equipment. 45°F for existing equipment **expires on January 2, 2012.**

**Highly Susceptible Population (HSP)**– a group of persons who are immune compromised, or older adults living in a health care or assisted living facility, hospital patients, or preschool children in a day care center. Special requirements are listed on page 5.

**Risk Type 1 Food Establishment** - low risk food operation

**Risk Type 2 Food Establishment** – medium risk food operation

**Risk Type 3 Food Establishment** – high risk food operation; and/or serves a highly susceptible population

**Risk Type 4 Food Establishment** – specialized processes

**Safe cooking Temperatures** – new temperatures for cooking raw animal foods. See page 3.

**Limiting Growth of Organisms in food** - See new time and temperature procedures on page 4.

### Supervision

- A designated person-in-charge (PIC) must be present during all hours of the operation
- A person-in-charge is responsible for the operation at the time of inspection
- The PIC supervises proper **food preparation, handwashing, temperature monitoring, cooling, cleaning/sanitizing, use of utensils, no bare-hand-contact with ready to eat foods.**
- By **January 2, 2010**, at least one **certified** food handler is required at a Risk Type 3 Establishment

### Personal Cleanliness

- Hands washed for 20 seconds; includes 10 seconds of vigorous rubbing with soap
- Hands must be washed at handsink before using gloves
- Artificial nails, nail polish and long nails require gloves for any food handling

### Hygienic Practices

- Food employees may drink from a closed beverage container while working

### Food Protection

- No bare hand contact with ready-to-eat foods. Gloves, tongs, utensils, or deli tissue required.

### Food Specifications

- Refrigerated foods must be 41°F when received (except 45°F for eggs and shellfish)
- Hot foods must be held at 135°F or higher
- Food labeled frozen must be received frozen

### Temperature measuring device

- A small diameter probe thermometer is needed to monitor thin meat patties and fish filets

# PERSONAL HYGIENE

## Hand washing before starting work and after:

Handling raw animal foods, handling unwashed produce, handling soiled utensils and equipment, touching hair, face or body, bathroom visit, sneezing or coughing, smoking, eating and drinking, cleaning, handling garbage.

**Wash hands for 20 seconds, rub vigorously with soap for at least 10 seconds; clean under nails and exposed arms, rinse well and then thoroughly dry.**

## Handwash station

Must be located in food preparation areas **AND** in the toilet room; requires hot and cold running water, hand soap and disposable towels/dryers, waste can. Common towels prohibited. Handsink is used for hands only!

Handwashing poster located at all handsinks.

## Disposable Gloves

Required for handling **ready-to-eat foods**; wash hands before putting on gloves; change gloves when soiled, torn and beginning a different task, when wearing artificial nails, nail polish or nails are long and not trimmed.

Gloves are not needed if you can use utensils (spoons, scoops, etc.) deli tissue or tongs. **NO BARE HAND CONTACT PERMITTED WITH READY-TO-EAT FOODS.**

## Ill or injured employees

Exclude from work if they have fever, diarrhea, vomiting, acute respiratory infection, infected wounds or a sore throat. Salmonella, hepatitis A, Shigella and E. coli 0157:H7 illness need to be reported to Health Department.

Wear disposable gloves during **any** food preparation if you have **minor** hand cuts or burns.

## Hair Restraints

Employees shall wear hats, hair coverings or nets, beard restraints and clothing that cover body hair. Hair covering must be designed and worn to effectively keep hair from contacting exposed food, clean equipment, utensils, linens or unwrapped single-service and single use articles.

## Good Employee Practices

Bathe daily, wear clean clothing and aprons, hair restraints; never wear jewelry except for plain wedding band. Provide area for storage of employee personal belongs. **Report illnesses or injuries to your supervisor before beginning work.**

## Tasting Food During Preparation

A tasting utensil may not be used more than **once** to taste food that is being served or sold.

## Eating and Smoking

Employees cannot eat in food preparation areas. Employees may use a **closed beverage container** while preparing food. **State law prohibits smoking inside any food establishment.**

## Supervision

Designated **person-in-charge** needs to routinely monitor employee handwashing and determine that employees are effectively cleaning their hands when required.

## COOKED FOOD TEMPERATURE REQUIREMENTS

### Raw fish, meat, pork and commercially raised game animals:

- 145°F or above for at least 15 seconds.

### Raw shell eggs, injected meats, hamburger and other comminuted (flaked) fish or meats:

Minimum Temperature	Minimum Holding Time
145°F	3 minutes
150°F	1 minute
<b>155°F</b>	<b>15 seconds</b>
158°F	1 second(instantaneous)

### Poultry, ground poultry, stuffed meats, stuffed fish, stuffed pastas and stuffing containing fish, meat or poultry:

- 165° F or above for at least 15 seconds

### Whole Beef roasts, corned beef roasts, pork roasts, cured pork roasts:

Temperature	Time	Temperature	Time
130 °F	112 minutes	140 °F	12 minutes
132 °F	77 minutes	142 °F	8 minutes
134 °F	47 minutes	144 °F	5 minutes
136 °F	32 minutes	145 °F	3 minutes
138 °F	19 minutes		

### Microwave meats and poultry:

- Heat thoroughly to 165°F
- Rotate or stir midway through the cooking to distribute heat
- Cover and let stand for 2 minutes after cooking

### Vegetables and fruits for Hot Holding:

- Cook to 135°F

### Reheat for hot holding:

- Reheat to 165°F or higher for 15 seconds. Reheat from cold to 165°F within **two** hours.
- Reheat to 135°F or higher for commercially pre-cooked, packaged foods

### Cooking Procedures:

- Cook foods to higher than minimum temperatures required
- Measure food temperatures with a calibrated thermometer....never guess!
- Check temperatures in several places....especially the thickest part
- Do not overload cooking surfaces and ovens
- Allow temperature of cooking equipment (i.e. cooking oil in fryers) to return to required temperatures between batches

## LIMITING GROWTH OF ORGANISMS

**TEMPERATURE DANGER ZONE: 41°F to 135°F.** This temperature range is where most harmful bacteria multiply rapidly. Keep potentially hazardous foods out of the danger zone or move it through the danger zone as quickly as possible during cooling, cooking or preparation.

**Thermometers: a temperature measuring device used to measure food, air and water temperatures.**

- Accurate to within 2°F for measuring food temperatures
- Accurate to within 3°F for measuring refrigeration and water temperatures
- Small diameter probe needed to measure thin food such as meat patties and fish filets
- Calibrated to ensure accuracy

## COOLING

### Cooling Procedures for Hot Foods:

- From 135°F to 70 °F in two (2) hours; continue...  
from 70°F to 41°F in four (4) hours. **SIX (6) HOURS TOTAL**
- Ice bath, ice wands, add ice, frequent stirring and other cooling methods
- Cut large items into smaller pieces; divide large batches into several smaller ones
- Use shallow pans or smaller containers; **do not use stock pots and large containers!!**
- Allow refrigerated air to circulate around food. Cover **after** product is cooled to 41°F.
- Hot foods can raise food and air temperatures in storage refrigerators and freezers
- Thermometer needed to monitor temperatures; record cooling times for each food
- Label cooled and stored foods with the date and time prepared
- Reheat to 165°F within 2 hours. **Do not use steamtables or warming units to reheat!**

### Cooling Procedures for Room Temperature Foods:

- For canned tuna and similar room temperature products, cool to 41°F in **four (4) hours**.

### Thawing Procedures:

- Under refrigeration....allow a day or more for large items i.e. turkeys....**OR**
- Totally submerged under cold (70°F or colder) running water....**OR**
- Microwave and then cook immediately....**OR**
- Part of the cooking process
- **Frozen ready-to-eat foods can be served at any temperature, for immediate service at customer's request.**

## HOLDING

### Cold Holding:

- Use cold holding equipment that can keep foods at 41°F or lower
- Hold ready-to-eat foods on plates or pans....not directly on ice. Ice holding equipment must be self-draining
- Measure food temperatures frequently and keep records

### Hot Holding:

- Use hot-holding equipment that can keep foods at 135°F or above
- Never use hot-holding equipment to cook or reheat foods
- Measure food temperatures frequently and keep records

## EXEMPTIONS AND SPECIAL REQUIREMENTS

### INDIVIDUAL CUSTOMER ORDER AND FOR IMMEDIATE SERVICE

- Cooked (ready-to-eat) and refrigerated foods can be served at any temperature i.e. roast beef sandwich au jus.\*
- Raw animal foods, raw shell eggs, raw fish, lightly cooked hamburger, soft cooked eggs, rare meats: *food is prepared in response to a consumer order and for immediate service\**.

**\*NOT PERMITTED WITH A HIGHLY SUSCEPTIBLE POPULATION!!!**

### TIME AS A PUBLIC HEALTH CONTROL

Ready-to-eat refrigerated foods can be held out of temperature control if:

- Food is marked when four hour time limit expires
- If not served or cooked within four hours, food is discarded
- Food cannot be returned to refrigeration once it is out of temperature control
- A written plan is submitted and approved by the Health Department

**UNMARKED OUT-OF-TEMPERATURE FOODS IS A VIOLATION AND WILL BE DISCARDED!!**

### SPECIALIZED FOOD PROCESSES REQUIRES HEALTH DEPARTMENT APPROVAL

- Smoking foods
- Curing foods
- Adding vinegar to foods to make it non-potentially hazardous (i.e. acidifying sushi rice)
- Packaging food using reduced oxygen packaging method
- Custom processing animals for personal use and not for retail sale or service
- Using time as a public health control

### HIGHLY SUSCEPTIBLE POPULATION

**Definition: anyone immune compromised, older adults living in a health care or assisted living facility, hospital patients, preschool age children in a custodial care facility (day care center).**

- Cannot be served juice bearing a warning label (un-pasteurized juices)
- Cannot be served raw animal foods, raw shellfish or partially cooked animal foods
- Cannot be served seed sprouts.
- Food in an unopened original container cannot be re-served

### EGGS AND EGG MIXTURES

- Receive at 45°F and keep eggs refrigerated at 41°F or below
- Cook scrambled eggs and omelets until firm and no liquid egg is present...155°F for 15 seconds
- Eggs may be cooked below 155°F if at **customer's request** and for **immediate consumption**

### USE PASTEURIZED EGGS FOR:

- Recipes that eggs do not reach 155°F i.e. hollandaise, béarnaise, chocolate mousse, Caesar salad dressing, egg nog, mayonnaise, lasagna, stuffed shells etc.
- Eggs served to highly susceptible population.

### SHELLFISH REQUIREMENTS (RAW OYSTERS, MUSSELS AND CLAMS)

- Receive shellfish with source identification tags affixed by certified dealer
- Keep shellfish and tag in original container until used. **(Non-tagged shellfish will be embargoed)**
- Store tags in chronological order for **90 days**.

## **HAZARD ANALYSIS CRITICAL CONTROL (HACCP)**

**CRITICAL CONTROL POINT:** is an operation (practice, preparation step, or procedure) where a preventative or control measure can be applied that would:

1. Eliminate (remove) a hazard
2. Prevent a hazard.
3. Lessen the risk that a hazard will happen.

### **COOKING**

- Poultry, ground poultry, stuffed meats, stuffing with raw meat, fish or poultry, stuffed pasta 165°F
- Ground meats and ground fish 155°F
- Raw eggs 155°F (or use pasteurized egg products)
- Meat roasts (see chart)
- Cooked fruits and vegetables for hot holding 135°F

### **COOLING**

#### **Hot foods**

From 135°F to 70°F in two hours; then continue....  
 from 70°F to 41°F in four hours (**SIX HOURS TOTAL**)

#### **Room Temperature Canned Foods**

From 70°F to 41°F in four hours

### **REHEATING**

1. Reheat within 2 hours to 165°F (your previously cooked/cooled foods), **OR**
2. Reheat to 135°F for commercially packaged cooked foods

### **HOT HOLDING**

- Above 135°F using a steamtable or warming cabinet
- Sufficient hot holding containers to maintain 135°F or higher for transport of hot foods

### **COLD HOLDING**

- Below 41°F (**after January 2, 2012** for existing establishments)
- Sufficient cold holding equipment to maintain 41°F or lower for the transport of cold foods
- Refrigeration must have sufficient capacity and design to support your operation

## **HANDWASHING AND NO-BARE-HAND CONTACT WITH READY TO EAT FOODS**

### **A HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP) PLAN:**

- Categorize the types of potentially hazardous foods that are in your menu (hazard analysis)
- Determine, by specific food, each critical control point
- Establish critical limits for each food or process
- Provide food employee and supervisory training plan that addresses food safety issues
- Establish method and frequency of monitoring each Critical Control Point (CCP)
- Detail corrective action procedures if the CCP is not met
- Establish record keeping to demonstrate that HACCP plan is properly managed and operated



## CLEANING AND SANITIZING

### CLEANING REQUIREMENTS

- Keep food contact surfaces and utensils clean to sight and touch
- Keep non-food contact surfaces free of accumulated dust, dirt and food residue
- Keep clean throughout the day; clean and sanitize at least every four hours
- Establish a cleaning schedule based on type of equipment and its use, type of food, amount of food residue and temperature at which food is maintained during the operation.

### SANITIZING METHODS

All food contact surfaces and utensils must be sanitized before use after cleaning.

#### Manual Sanitizing

- Immerse in hot water at 171°F or above for at least 30 seconds
- Use a three compartment sink to wash, rinse, sanitize and air dry
- Sanitize using the third compartment of the 3-bay sink
- Drainboard required to air dry utensils and equipment
- Use a **test kit** and **thermometer** to measure concentrations and water temperatures

**Immerse, swab, or pressure spray sanitizing solution by providing:**

Min. Concentration mg/L or ppm	Min. Temperature with pH 10 or less	Min. Temperature with pH 8 or less	Minimum Exposure Time
25 ppm Chlorine	120°F	120°F	10 seconds
50 ppm Chlorine	100°F	75°F	7 seconds
100 ppm Chlorine	55°F	55°F	10 seconds
12.5-25 ppm Iodine	75°F	75°F	30 seconds
QUATS(blue tabs)	follow manufacturer's labeling instructions		30 seconds
Other Sanitizers	follow manufacturer's labeling instructions		30 seconds

### Dishmachines

#### High Temperature Units

- Hot water sanitizing temperature is 165°F for a stationary rack, single temperature machine
- Hot water sanitizing temperature is 180°F for all other high temperature machines
- Booster heater is required to reach sanitizing temperatures
- Utensil surface (**plate temperature**) is at least **160°F**. Monitor using an irreversible temperature indicator.
- Manufacturer's operation specifications must be posted on the machine

#### Low Temperature/Chemical Dishmachine:

- Wash water temperature is at least 120F; thermometer provided that measures water temperature in each wash and rinse tank
- **Audible or visible alarm** indicates when more chemical sanitizer is needed (Effective January, 2007)
- Manufacturer's operation specifications must be posted on the machine
- Test kit required to measure sanitizing concentration

## Manual Washing and Sanitizing

### 3 compartment sink needed to properly sanitize:

**Wash:** in first sink, detergent solution until food and grease removed

**Rinse:** in second sink, clean warm water, until food and soap residue is removed

**Sanitize:** use third sink; see chart for correct sanitizing solution

**Air dry:** on drainboard, tubular shelving or pot rack. **TOWEL DRYING NOT PERMITTED!!**

**\*A three compartment sink cannot be used for handwashing\***

## PROTECT FOODS FROM CONTAMINATION

- Use only foods obtained from a reputable, approved source
- Separate raw animal foods from ready-to-eat foods during storage, display, preparation and holding i.e. use separate cutting boards, knives, wash hands/change gloves between tasks etc.
- Separate types of raw animal food using separate containers, equipment, separate preparation areas
- Food shall only contact clean and sanitized equipment and utensils or single-use items
- Clean food containers of visible soil before opening
- Store damaged, spoiled or recalled foods in a separate area
- Separate unwashed fruits and vegetables from ready-to-eat food
- Cover or package stored and displayed food to protect from contamination
- Dispensing utensils such as scoops and spoons must be stored in the product with the handle extended beyond the product, in a running dipper well, on clean cooking equipment if sanitized frequently or in a container of water that is at least 135°F.
- Ice scoops should be stored in a clean protected area
- Wet and dry wiping cloths need to be free of food debris and visible soil

## MOST COMMON RISK FACTORS RESPONSIBLE FOR FOODBORNE ILLNESS

- Using food from unapproved sources
- Failing to cook foods properly
- Holding food at improper temperatures
- Using unclean and unsanitized equipment
- Poor personally hygiene practices

## REFUSE, RECYCLING AND RETURNABLES

- Provide sufficient containers to hold refuse and recyclables
- Remove refuse and recyclables frequently to minimize build up of soil, avoid vermin attraction and minimize objectionable odors.
- Containers for handling refuse and food waste must be durable, cleanable, vermin resistant, leakproof and nonabsorbent. Tight fitting lids and drain plugs must be provided.
- Dumpsters and trash containers must be stored on a nonabsorbent material such as concrete and asphalt.
- Maintain outdoor refuse storage areas free of unnecessary items; clean food soils and litter as needed.
- Plastic bags and paper containers are **not approved** containers for outside storage.
- Meet all required standards for recycling.

