

## Recommendations for Communicating with Food Employees

- Use stories and sayings with vivid examples to allow food employees to “feel” the impact of a behavior. Sharing personal experiences and stories is a way of connecting.
- Be prepared to share an example of an outbreak related to each of the five foodborne illness risk factors as you encounter out of compliance issues during inspections. Share the outbreak in a conversational manner. Provide a brief description of the implicated establishment especially if it is similar to the one being inspected. If the environmental antecedents to the outbreak are known or suspected, share those as well. Focus on the big picture (what happened and what the consequences were for the victims (illness, loss of life, or bodily function), the food employee(s) (loss of income or job), and the implicated establishment (loss of reputation or the business).
- The oral culture learner needs to see good food safety behavior modeled by others, especially the manager. Stress the importance of role modeling to managers during inspections. They should model appropriate behavior and positive feedback to employees when they exhibit behavior that supports safe food preparation.
- Whenever possible, information should be provided by people with whom the food employees have a trusting relationship.
- Use familiar words and examples that food employees can relate to
- Present information verbally and often. 80% of communication is non-verbal and can be emphasized through body language. When a person is an oral culture learner and is being taught through print communication, the message can be misunderstood.
- Minimize power dynamic. With the limited exception of when working with individuals from certain cultures, always use direct eye contact. Allow for two-way communication.
- Use simple signs/posters as reminders.
- Information must be presented in a way that is big picture with less emphasis on details. For instance, help food employees understand the reasons why implementing a certain food safety practice is important before you explain how to do the practice.
- Be interactive. The oral culture learner learns best when they get to practice the learning in their own environment.

## Maximizing Your Inspection

1. Review past inspection reports before arriving to the establishment
2. Introduce yourself, state the purpose of the visit, present your credentials
3. Establish rapport with the operator
4. Ask for a menu/food list (take it with you into the kitchen)
5. Don a hair restraint if you haven't already
6. Enter kitchen
7. Wash your hands
8. While washing hands, ask manager specific questions about what is being done right now:
  - Are you cooking or preparing anything right now?
  - Are you in the process of receiving anything or have you received food recently?
  - Do you have food items in the process of cooling? Do you have food items that you carried over from last night that are in the cooler? Did you prepare anything this morning that would be in the cooler now?
  - Are you reheating anything?
9. Begin your quick walk-through at Point A and walk in one direction through the kitchen – observe what is being done, jot down notes if needed, peek in ovens and coolers, ask questions to determine what is being done
10. Return to Point A in about 2-3 minutes, depending on the size of the facility
11. Quickly look over the menu. Ask questions to clarify your understanding.
12. Prioritize your inspection time and determine inspection flow based on the inspection report review, your observations during the quick walk-through, the responses to your questions, and the menu review.
13. Begin your inspection
14. Make adjustments as necessary as you encounter new situations.

## ***Food Safety Management Systems***

***A food safety management system is one that:***

- identifies potential food safety hazards throughout the flow of food
  - ✓ identifies food safety hazards
- prevents / reduces the potential for occurrence of food safety practices and procedures that may lead to illness
  - ✓ controls food product time and temperatures
    - ❖ Cooking
    - ❖ Cooling
    - ❖ Reheating
    - ❖ Hot Holding
    - ❖ Cold Holding
    - ❖ Time as a Public Health Control
  - ✓ prevents cross contamination / product contamination
    - ❖ Separation raw animal foods from ready-to-eat foods
    - ❖ Separation of raw animal food from different species
    - ❖ Cleaning and Sanitizing
  - ✓ facilitates good personal hygiene practices
    - ❖ Employee Health Policy
    - ❖ Handwashing
    - ❖ No Bare Hand Contact with Ready-To-Eat Food
  - ✓ maintains / implements supplier food safety standards / specifications
    - ❖ Time / Temperature Control sushi maybe
    - ❖ Organoleptic (Sensory) Evaluations
    - ❖ Prevention of Product Contamination
    - ❖ Documentation (Certificate of Conformance / Shellfish Tags)
- establishes quantifiable measurement to ensure food safety practices and procedures control the hazards of concern for each risk factor
- corrects problems throughout the flow of food
  - ❖ Monitoring of established measurements
  - ❖ Specific action to be taken when problem are found
  - ❖ Includes documentation to ensure processes are being completed
  - ❖ Reviews system periodically to ensure it is working

***A food safety management system has:***

- Certified food protection managers who have shown a proficiency in required information by passing a test that is part of an accredited program
- Standard Operating Procedures – a method of controlling a practice in accordance with predetermined specifications to obtain a desired outcome.
- Recipe cards that contain the specific steps for preparing a food item and the food safety critical limits, such as final cooking temperatures, that need to be monitored and verified
- Purchase specifications
- Trained Managers and Employees – Knowledge, skills, and responsibility for implementing the established food safety practices and procedures
- Monitoring – a verifiable method for ensuring that quantitative measurements required to control food safety hazards are attained.
  - ✓ What will be monitored
  - ✓ How will it be monitored
  - ✓ Who will monitor it
  - ✓ How often it will be monitored
- Record keeping
- Specific goal-oriented plans, like Risk Control Plans (RCPs) that outline procedures for controlling foodborne illness risk factors.
- Appropriate equipment and facility layout to support the implementation of food safety procedures.

**A food safety management system results in:**

- The control of hazards associated with foodborne illness risk factor areas
- Compliance with Food Code critical limits and regulations pertaining to risk factor areas
- Increase in employee awareness and participation in food safety

# FDA Foodborne Illness-Causing Organisms in the U.S. WHAT YOU NEED TO KNOW

While the American food supply is among the safest in the world, the Federal government estimates that there are about 48 million cases of foodborne illness annually—the equivalent of sickening 1 in 6 Americans each year. And each year these illnesses result in an estimated 128,000 hospitalizations and 3,000 deaths.

The chart below includes foodborne disease-causing organisms that frequently cause illness in the United States. As the chart shows, the threats are numerous and varied, with symptoms ranging from relatively mild discomfort to very serious, life-threatening illness. While the very young, the elderly, and persons with weakened immune systems are at greatest risk of serious consequences from most foodborne illnesses, some of the organisms shown below pose grave threats to *all* persons.

ORGANISM	COMMON NAME OF ILLNESS	ONSET TIME AFTER INGESTING	SIGNS & SYMPTOMS	DURATION	FOOD SOURCES
<b><i>Bacillus cereus</i></b>	<i>B. cereus</i> food poisoning	10-16 hrs	Abdominal cramps, watery diarrhea, nausea	24-48 hours	Meats, stews, gravies, vanilla sauce
<b><i>Campylobacter jejuni</i></b>	Campylobacteriosis	2-5 days	Diarrhea, cramps, fever, and vomiting; diarrhea may be bloody	2-10 days	Raw and undercooked poultry, unpasteurized milk, contaminated water
<b><i>Clostridium botulinum</i></b>	Botulism	12-72 hours	Vomiting, diarrhea, blurred vision, double vision, difficulty in swallowing, muscle weakness. Can result in respiratory failure and death	Variable	Improperly canned foods, especially home-canned vegetables, fermented fish, baked potatoes in aluminum foil
<b><i>Clostridium perfringens</i></b>	Perfringens food poisoning	8-16 hours	Intense abdominal cramps, watery diarrhea	Usually 24 hours	Meats, poultry, gravy, dried or precooked foods, time and/or temperature-abused foods
<b><i>Cryptosporidium</i></b>	Intestinal cryptosporidiosis	2-10 days	Diarrhea (usually watery), stomach cramps, upset stomach, slight fever	May be remitting and relapsing over weeks to months	Uncooked food or food contaminated by an ill food handler after cooking, contaminated drinking water
<b><i>Cyclospora cayetanensis</i></b>	Cyclosporiasis	1-14 days, usually at least 1 week	Diarrhea (usually watery), loss of appetite, substantial loss of weight, stomach cramps, nausea, vomiting, fatigue	May be remitting and relapsing over weeks to months	Various types of fresh produce (imported berries, lettuce, basil)
<b><i>E. coli (Escherichia coli) producing toxin</i></b>	<i>E. coli</i> infection (common cause of "travelers' diarrhea")	1-3 days	Watery diarrhea, abdominal cramps, some vomiting	3-7 or more days	Water or food contaminated with human feces
<b><i>E. coli</i> O157:H7</b>	Hemorrhagic colitis or <i>E. coli</i> O157:H7 infection	1-8 days	Severe (often bloody) diarrhea, abdominal pain and vomiting. Usually, little or no fever is present. More common in children 4 years or younger. Can lead to kidney failure	5-10 days	Undercooked beef (especially hamburger), unpasteurized milk and juice, raw fruits and vegetables (e.g. sprouts), and contaminated water
<b>Hepatitis A</b>	Hepatitis	28 days average (15-50 days)	Diarrhea, dark urine, jaundice, and flu-like symptoms, i.e., fever, headache, nausea, and abdominal pain	Variable, 2 weeks-3 months	Raw produce, contaminated drinking water, uncooked foods and cooked foods that are not reheated after contact with an infected food handler; shellfish from contaminated waters
<b><i>Listeria monocytogenes</i></b>	Listeriosis	9-48 hrs for gastro-intestinal symptoms, 2-6 weeks for invasive disease	Fever, muscle aches, and nausea or diarrhea. Pregnant women may have mild flu-like illness, and infection can lead to premature delivery or stillbirth. The elderly or immunocompromised patients may develop bacteremia or meningitis	Variable	Unpasteurized milk, soft cheeses made with unpasteurized milk, ready-to-eat deli meats
<b>Noroviruses</b>	Variously called viral gastroenteritis, winter diarrhea, acute non-bacterial gastroenteritis, food poisoning, and food infection	12-48 hrs	Nausea, vomiting, abdominal cramping, diarrhea, fever, headache. Diarrhea is more prevalent in adults, vomiting more common in children	12-60 hrs	Raw produce, contaminated drinking water, uncooked foods and cooked foods that are not reheated after contact with an infected food handler; shellfish from contaminated waters
<b><i>Salmonella</i></b>	Salmonellosis	6-48 hours	Diarrhea, fever, abdominal cramps, vomiting	4-7 days	Eggs, poultry, meat, unpasteurized milk or juice, cheese, contaminated raw fruits and vegetables
<b><i>Shigella</i></b>	Shigellosis or Bacillary dysentery	4-7 days	Abdominal cramps, fever, and diarrhea. Stools may contain blood	24-48 hrs	Raw produce, contaminated drinking water, uncooked foods

# Changes to Cold Holding Temperatures in NC

*Checklist for assessing and addressing problems once a cold hold violation is observed*

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## **Food**

- Are temperatures being taken often and properly to assess equipment? (only go 1-2" from top of food when taking temperatures)
- Are food containers overfilled?
- Can non-TCS (Time/Temperature Control for Safety) foods be removed or rearranged to warmer areas of the cooler?
- Can some food that is needed less frequently be moved to walk-in or long term cold storage?

## **Processes**

- Are all foods cooled to below 41°F before placing in holding units (buffets, prep coolers, salad bars)?
- Are canned foods, whole tomatoes and melons, mayonnaise for deli salads, and other items pre-chilled to help with temperature control?
- Can Time as a Public Health Control (TPHC) be used as a good option for items that cannot be maintained below 41°F?
- Are there packaged items, like dressing cups, that can be moved away from top of prep cooler to help keep them below 41°F?

## **Equipment**

- Are compressor fans blocked or is air flow restricted *inside* unit?
- Are prep unit tops and doors kept closed when not in use?
- Is the ambient air temperature of the kitchen appropriate for the equipment?
- Does equipment need maintenance (more coolant, coil cleaning, or gasket repair)?
- Is there adequate air flow *outside* the prep cooler unit for air intake?

*By signing below, I attest that I have been made aware of the upcoming changes to temperatures starting in January 2019 and have been informed about methods to maintain compliance.*

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**Person in Charge / Establishment Name**

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**Date**



NC DEPARTMENT OF  
**HEALTH AND  
HUMAN SERVICES**

**ROY COOPER** • Governor  
**MANDY COHEN, MD, MPH** • Secretary  
**BETH LOVETTE, MPH, BSN, RN** • Acting Director  
Division of Public Health

**POSITION STATEMENT:** Implementation of 41°F Cold Holding effective January 1, 2019

**PURSUANT TO:** North Carolina Food Code Manual. Part 3-5

**SOURCE:** Shane Smith, REHS, Branch Head, Food Protection and Facilities Branch

**QUESTION/ISSUE:** Clarification of enforcement actions for cold holding requirements regarding 41°F or below.

**DISCUSSION AND RATIONALE:**

In 2012, the Commission for Public Health adopted the 2009 FDA Food Code. Because of concerns raised by industry, it was decided to phase in the 41°F cold holding requirement over a six-year period with an implementation date of January 1, 2019. Local Health Departments have requested guidance regarding the implementation of the 41°F cold holding requirement. On January 1, the requirements for cold holding will change from 45°F or below to 41°F or below, per 3-501.16(A)(2) of the NC Food Code.

With respect to embargo of food stored between 42-45°F, the North Carolina Department of Health and Human Services' (NCDHHS) authority to embargo (NCGS 130A-21) is subject to the North Carolina Department of Agriculture and Consumer Services (NCDCA&CS) definition of *adulterated* in NCGS 106-129. NCDCA&CS advises food stored between 42-45°F is not a sole justification to embargo.

The relative food code citations and enforcement actions are outlined below.

**RESPONSE/INTERPRETATION:**

***Cold Holding-3-501.16(A)(2) and (B)*** – First inspection\* (on or after January 1, 2019) for Time/Temperature Control for Safety (TCS) foods found within the 42°F-45°F temperature range, mark OUT and take zero points. Permit action should not be taken during the first inspection for this violation.

***Cooling-3-501.14*** – First inspection\* (on or after January 1, 2019) mark OUT for TCS foods that have cooled to 42-45°F within cooling parameters and take zero points. Permit action should not be taken during the first inspection for this violation. When possible, relocate food to cold holding equipment capable of maintaining TCS food at 41°F or below and cool food the

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remaining 1-4 degrees. Use ice and/or walk-in freezers to prevent cooling violations when possible.

***Date Marking-3-501.18*** – First inspection\* (on or after January 1, 2019) if 4-day dated food is found at 42-45°F, mark OUT with zero points. Permit action should not be taken during the first inspection for this violation. Food may be kept for the remaining time and should be served as soon as possible. Voluntary disposal should be considered for items not date marked, regardless of temperature. Without obtaining a variance, 4-day date marking will be subject to point deductions after the first inspection (*See Achieving Long-Term Compliance Section for more information*).

***Time As A Public Health Control-3-501.19*** – First inspection\* (on or after January 1, 2019) if the starting temperature is 42-45°F, it can be kept or the food may be put on Time as a Public Health Control (TPHC) for 4 hours or 6 hours depending on holding temperature. Mark OUT with zero points during the first inspection. Permit action should not be taken during the first inspection for this violation. Without obtaining a variance, starting TPHC foods at 42°F-45°F will be subject to point deductions after the first inspection (*See Achieving Long-Term Compliance Section for more information*).

***Thawing-3-501.13*** – First inspection\* (on or after January 1, 2019) Mark OUT for TCS foods that are 42°F-45°F at any point during the thawing process and take zero points. Permit action should not be taken during the first inspection for this violation.

***Slacking-3-501.12*** – First inspection\* (on or after January 1, 2019) Mark OUT for foods that are slacking in refrigeration that is holding food between 42°F and 45°F and take zero points. Permit action should not be taken during the first inspection.

\*The first inspection is the inspection that occurs in an establishment on or after January 1, 2019. After the first inspection, please proceed with taking point deductions as specified in 15A NCAC 18A .2661.

***Please note that this position statement does not apply to food temperatures above 45°F. For temperature violations above 45°F, points should be deducted and corrective actions should be achieved according to current practice.***

When food is found between 42°F and 45°F, this is considered a critical violation and must be corrected during the inspection. Corrective action includes using education, voluntary disposal, and Risk Control Plans (RCPs). Education can consist of guidance documents with explanation and staff training. The corrective action taken should be documented on the inspection report. All correction options listed here allow an Authorized Agent to mark the 'CDI' box on the inspection sheet. Follow up visits may still be performed and are encouraged to aid in compliance.

After each establishment has had at least one inspection in 2019 under the 41°F temperature requirement, points will be assessed as explained in Rule .2661(e). No permit action or embargo

authority should be used for 42-45°F cold holding violations alone. Determining the cause of the violation and educating operators about compliance with the 41°F temperature requirement-not assessing point deductions-is our priority as Environmental Health Specialists. Document cause of the violation on the inspection form and suggest corrective actions as previously outlined.

***Achieving Long Term Compliance*** – Variances may be granted for Date Marking for 4 days at a maximum of 45°F or TPHC starting at a maximum of 45°F for 4 hours only (even if held at 70°F). Guidance based on FDA computer modeling has shown that the *Listeria monocytogenes* (LM) risk is addressed using these procedures. Templates have been developed and can be utilized to achieve long term compliance. Variances will need to be approved and supported by the Local Health Department and then by the NCDHHS Variance committee. These options allow operators to control LM and other pathogens of concern and prevent point deductions. NOTE: Even if a variance for Date Marking and TPHC is granted and operators are following them, foods found between 42°F-45°F will still lead to point deductions for Cold Holding after the first inspection in 2019. A variance to cover all aspects of cold holding will *not* be granted to allow foods to be held at 42°F-45°F because this would significantly increase the risk to the public.

#### REFERENCES:

- Rules Governing the Food Protection and Sanitation of Food Establishments, [15A NCAC 18A .2600](#)
- [NC 2009 Food Code](#)
- [NC General Statutes](#)
- [Emergency Action Plan for Retail Food Establishments](#)
- [FDA Risk Assessment for Listeria monocytogenes growth of Ready-to-eat foods](#)
- [Staphylococcus aureus Toxin Formation in Hydrated Batter Mixes](#)
- [Scombrototoxin \(Histamine\) Formation](#)
- [Clostridium botulinum Toxin Formation](#)

*NOTE: Position statements are policy documents to clarify how to interpret or enforce a law or rule. They are not enforceable on their own, but are intended to promote uniform interpretation and enforcement of the underlying law or rule.*

# JOB AID

## ASSESSING COMPLIANCE AND ACTIVE MANAGERIAL CONTROL OF RISK FACTORS

### COOKING and REHEATING

#### A. COOKING Critical Limits

Products	Critical Limits
<ul style="list-style-type: none"> <li>▶ Poultry</li> <li>▶ Wild Game Animals (live-caught or field-dressed)</li> <li>▶ <b>STUFFED</b> fish, meat (including, but not limited to, pork), poultry, ratites, or pasta containing fish, meat, poultry, or ratites</li> <li>▶ <b>STUFFING</b> containing fish, meat, poultry, or ratites</li> </ul>	<p>165°F (74°C) for 15 seconds 7-log reduction of <i>Salmonella</i> (or 7D kill)</p>
<p>Microwave Cooking – for raw animal foods Covered, rotated, or stirred throughout or midway through the cooking process and held covered for 2 minutes</p>	<p>165°F (74°C) with 2 minute post-cooking hold (7D kill of <i>Salmonella</i>)</p>
<ul style="list-style-type: none"> <li>▶ <b>COMMINUTED</b> fish, ground beef, or other meats</li> <li>▶ <b>RAW SHELL EGGS</b> – not prepared for immediate service (combined or hot held). (also see highly susceptible populations)</li> <li>▶ Ratites</li> <li>▶ Mechanically-tenderized and injected meats</li> </ul>	<p>155°F (68°C) for 15 seconds OR 158°F (70°C) for &lt;1 second OR 150°F (66°C) for 1 minute OR 145°F (63°C) for 3 minutes (5D kill of <i>Salmonella</i>)</p>
<ul style="list-style-type: none"> <li>▶ Raw shell egg prepared for immediate service</li> <li>▶ Commercially-raised game animals</li> <li>▶ Other raw animals not otherwise specified in this table</li> </ul>	<p>145°F (63°C) for 15 seconds  (3D kill of <i>Salmonella</i>)</p>
<p><b>WHOLE MUSCLE, INTACT BEEF STEAK</b> that has been properly labeled as such may be served undercooked as ready-to-eat if not serving a highly susceptible population</p>	<p>Surface temperature ≥145°F (63°C) and cooked color change on all external surfaces</p>
<p><b>PLANT FOOD FOR HOT HOLDING:</b> fruits &amp; vegetables requiring time/temperature control for safety that will be hot held</p>	<p>135°F (57°C) - cooked to the hot holding temperature</p>

#### WHOLE ROASTS OF BEEF, CORNED BEEF, PORK, OR CURED PORK

Critical Limits				Oven Parameters based on Oven Type and Roast Weight		
Temperature	Time in Minutes	Temperature	Time in Seconds	Oven Type	Roast Weight < 10 lbs. (4.5 kg)	Roast Weight ≥10 lbs. (4.5 kg)
130°F (54.4°C)	112	147°F (63.9°C)	134	Still Dry	≥ 350° F (177°C)	≥ 250° F (121°C)
131°F (55.0°C)	89	149°F (65.0°C)	85			
133°F (56.1°C)	56	151°F (66.1°C)	54	Convection	≥ 325° F (163°C)	≥ 250° F (121°C)
135°F (57.2°C)	36	153°F (67.2°C)	34			
136°F (57.8°C)	28	155°F (68.3°C)	22	High Humidity <sup>1</sup>	≤ 250° F (121°C)	≤ 250° F (121°C)
138°F (58.9°C)	18	157°F (69.4°C)	14			
140°F (60.0°C)	12	158°F (70.0°C)	0			
142°F (61.1°C)	8					
144°F (62.2°C)	5			<p>1. Relative humidity &gt;90% for ≥ 1 hour as measured in the cooking chamber or oven vent, or in a moisture-impermeable bag that provides 100% humidity</p>		
145°F (62.8°C)	4					

## COOKING and REHEATING

### A. COOKING Critical Limits (continued)

<b>COOKING RAW ANIMAL FOODS USING A NON-CONTINUOUS COOKING PROCESS</b>	
▶	Procedures must have prior approval from the regulatory authority before process is implemented
▶	Written procedure must be available on-site and: <ul style="list-style-type: none"> <li>✓ Describes the process and critical limits for critical control points identified below</li> <li>✓ Describes monitoring, corrective actions, and recordkeeping procedure</li> <li>✓ Include a system for clearly marking undercooked animal food</li> <li>✓ Address separation of partially-cooked animal foods from ready-to-eat foods</li> </ul>
▶	Initial heating process is completed with 60 minutes
▶	Immediately after heating, product is cooled to: <ul style="list-style-type: none"> <li>✓ Within 2 hours from 135°F (57°C) to 70°F (21°C); and</li> <li>✓ Within a total of 6 hours from 135°F to 41°F or less</li> </ul>
▶	After cooling, held cold at 41°F or less OR frozen
▶	<u>PRIOR TO SERVICE OR SALE</u> – cooked to a temperature of 165°F (74°C) for 15 seconds

### B. REHEATING Critical Limits

<b>REHEATING COOKED TIME/TEMPERATURE CONTROL FOR SAFETY FOODS FOR HOT HOLDING</b>	
Process / Product	Critical Limit
▶ Reheating for hot holding	165°F (74°C) for 15 seconds – process not to exceed 2 hours
▶ Reheating in a microwave oven	165°F (74°C) for 15 seconds <ul style="list-style-type: none"> <li>✓ rotated or stirred</li> <li>✓ covered</li> <li>✓ allowed to stand for 2 minutes after reheating</li> </ul>
▶ Commercially-processed ready-to-eat foods	135°F (57°C) – process not to exceed 2 hours
▶ Remaining unsliced portions of cooked roasts	Using oven parameters and minimum time and temperatures conditions previously presented in the chart for cooking roasts
▶ Preparation for immediate service	Food cooked, refrigerated, and then prepared for immediate service in response to an individual customer request may be served at any temperature.

**Some Questions for Assessing Active Managerial Control of COOKING Processes**

- Are specific procedures in place for cooking foods?
  - ✓ Are the cooking procedures product-specific (roasts, hamburgers, etc.)?
  - ✓ Are any cooking procedures based on equipment temperature for a set amount of time?
  - ✓ Is a slow cook process used for any of the food products (like roasts)?
  - ✓ Does the facility receive steaks from whole muscle intact beef? Is there labeling to document this?
- Does the staff know the correct cooking temperatures?
- Are raw animal foods cooked to customer order (i.e. rare, medium-rare, medium, or well-done)? If yes, what food items?
- If raw animal foods are intentionally undercooked or served raw, does the establishment have a proper consumer advisory?
- Are there any meats that are partially cooked and cooled in preparation for large volume preparation later?
- How are cooking temperatures monitored?
- What type of equipment is used to measure the final internal product cooking temperatures?
- What actions do employees take when food does not reach the proper temperature?
- Are cooking logs maintained (although not required per the Food Code)?

**Some Questions for Assessing Active Managerial Control of REHEATING Processes**

- What happens to leftover food?
- Do you cook foods well in advance of meal times?
- Do you reheat for hot holding any products that have been previously cooked at the food processing/manufacturer level?
- How are food products reheated? Range top/Steamer/Microwave/Steam kettle/oven or other device?
- How are reheating temperatures monitored?
- What actions are taken if reheating temperatures are not attained within the required amount of time?
- Are reheating logs maintained (although not required per the Food Code)?

**Tips for Assessing Active Managerial Control of COOKING and REHEATING Processes**

- Enlist the help of cooperative food employees to notify you of foods that have finished cooking. This allows you to continue with the inspection in other areas of the operation yet continue to verify that proper cooking/reheating temperatures are being met.
- Observe whether or not food employees are equipped with appropriate temperature measuring devices and are using them to check final cooking/reheating temperatures.
- Ask food employees if they know the required critical limits for cooking and reheating.
- Compare your calibrated temperature measuring devices with those used by the food establishment.
- Ask food employees to demonstrate proper calibration of temperature measuring devices.
- Determine if there are any specific procedures established by the operation for cooking or reheating foods. If not, how are employees taught how to conduct the cooking/reheating process? What training did they receive?
- For high volume cooking equipment such as grills, conveyor systems, clam shells, and broilers, ask employees how they know that a product has achieved the final cook/reheat temperatures if they are not checked with a thermometer. For example, has the establishment conducted time/temperature assessments that ensure that products are cooked or reheated properly using a validated process specific to the equipment being used?
- Ask food employees what action is taken when they discover cooking/reheating temperatures are not being achieved. There should be a short-term corrective action that focuses on the continued cooking/reheating of the product until it attains the proper temperature (Food Code critical limit). In addition, there should be a long-term corrective action that assesses whether the facility's procedures are appropriate, the equipment is working properly, employees are properly trained, and other underlying root causes are addressed.
- Determine if the establishment maintains any documentation of cooking/reheating temperatures taken during the course of the day.
- Determine whether raw or undercooked animal foods are served including raw or undercooked animal foods used as ingredients in custards, sauces, or dressings. If so, determine if the establishment has an acceptable consumer advisory with disclosure and reminder.

## IMPROPER HOLDING / TIME & TEMPERATURE CONTROL

### SUMMARY: IMPROPER HOLDING / TIME & TEMPERATURE CONTROL AREAS

- A. Assessing Active Managerial Control of Cooling Processes
- B. Assessing Active Managerial Control of Cold Holding and Date Marking
- C. Assessing Active Managerial Control of Hot Holding
- D. Assessing Active Managerial Control of Time Used as a Microbial Growth Barrier

### A. COOLING Critical Limits

<b>COOLING TIME/TEMPERATURE CONTROL FOR SAFETY (TCS) FOODS</b>	
<b>Process / Product</b>	<b>Critical Limit</b>
▶ Cooling of properly cooked TCS foods	<ul style="list-style-type: none"> <li>✓ Within 2 hours from 135°F (57°C) to 70°F (21°C) <u>AND</u></li> <li>✓ Within a total of 6 hours from 135°F (57°C) to 41°F (5°C) or less</li> </ul>
▶ Cooling of TCS foods from ambient temperature ingredients	Cooled to 41°F (5°C) within 4 hours
▶ Cooling of TCS foods received in compliance with laws that allow temperatures $\geq$ 41°F during shipment	<ul style="list-style-type: none"> <li>✓ Cooled to 41°F (5°C) within 4 hours</li> <li>✓ Exception – Raw shell eggs must immediately be placed in refrigeration maintaining an air temperature of 45°F (7°C) or less</li> </ul>

### **Some Questions for Assessing Active Managerial Control of COOLING Processes**

- What TCS Foods are cooked and then cooled?
- What TCS Foods are prepared from ambient room temperature ingredients?
- What does the operation do with leftovers, particularly at the end of the business day?
- Does the operation cook foods well in advance of meal times?
- What is the density of foods that are cooled?
  - ✓ Thin liquids (broth-based soups)
  - ✓ Thick liquids (gravies; sauces)
  - ✓ Semi-Solids (Casseroles; Stuffed Pastas)
  - ✓ Solids (Roasts; Cuts of Meats)
- What cooling methods are used for TCS Foods?
  - ✓ Shallow pans under refrigeration
  - ✓ Breaking down the product to smaller portions
  - ✓ Blast chiller / rapid cooling equipment
  - ✓ Ice Water Bath / Ice Wands
  - ✓ Type of container to facilitate heat transfer (stainless steel vs. plastic)
  - ✓ Ice as an ingredient
- How are cooling temperatures monitored?
- How do employees ensure that the cooling time frames are met?
- What corrective actions do they take if the time frames are not met?
- Are cooling records maintained (though not required per the Food Code)?

### **Tips for Assessing Active Managerial Control of COOLING Processes**

- Vary the time of day the inspection is conducted to ensure cooling is observed. Early morning inspections allow an opportunity to verify that leftovers from the night before were cooled properly or cooled using a proper cooling method. Alternatively, afternoon inspections may allow you to verify cooling of products that may have been prepared that morning or are still in the process of cooling.
- Become familiar with an establishment's food production schedule.
- Determine if food products are being cooled very early in the inspection.
- Discuss the cooling process with the food employee who worked with the product prior to cooling. Accurate time-temperature assessments related to when the cooling process was initiated are essential to determining the effectiveness of the cooling procedure being used.
- Ask food employees and managers about the cooling procedures used, even if cooling is not taking place during the inspection.
- Take temperatures of foods being cooled at the beginning of the inspection and again towards the end of the inspection. An evaluation of the two temperatures in conjunction with the elapsed time between the two readings will give an indication of the cooling rate. A single temperature check of cooling foods does not always provide enough information to assess the procedure.
- Take temperature measurements in the geometric center of the product, then at various points around the perimeter of the product. Ask additional questions to determine the time parameters involved. Temperature differences in a container of food may provide evidence that the product is in the process of cooling (e.g., cooler temperatures around the outer edges versus warmer temperatures in the middle).
- Ask questions of food employees about the cooling method used. Do they know that the method used cools foods to the proper temperature within the required time frame? Validating that the cooling procedure works is an important component of active managerial control, especially for facilities that intend to cool leftovers at the close of business and will not have staff available to monitor actual temperatures as the food proceeds through the cooling process.
- If an establishment has confirmed (or validated) that a cooling procedure works, they may have implemented a monitoring system that primarily focuses on the proper implementation of the cooling methods. Visual checks may be conducted of the depth of foods in containers, number of filled bags placed in cooling tanks, amount of ice added to recipes, etc. This information is important for assessing the level of active managerial control and determining whether an establishment follows its own procedures.

**Tips for Assessing Active Managerial Control of COOLING Processes (continued)**

- Determine if ingredients used to make menu items are pre-chilled before preparation. After preparation, assess whether these products are placed in large containers to cool or stacked in a manner that will not facilitate cooling. Foods that are prepared from ambient air temperature ingredients (even pre-chilled ingredients), such as tuna salads, meat sandwiches, Cole slaw, all varieties of salad, etc., are often overlooked as ones that require proper cooling. During batch preparation, the temperature of the ingredients of these products cause rise significantly.
- Assess each cooling method used to determine if sufficient controls are in place. This is because an establishment may need to implement a variety of cooling methods to address the different variety of foods required to be cooled. In most cases, however, one cooling method will work for all types of foods (thin liquids; thick liquids; semi-solids; solid).
- A thorough assessment of cooling requires an evaluation of all the information gained from food employees and management, in combination with temperature measurements taken.

## **B. COLD HOLDING and DATE MARKING Critical Limits**

<b>COLD HOLDING OF TIME/TEMPERATURE CONTROL FOR SAFETY (TCS) FOODS</b>	
<b>Process / Product</b>	<b>Critical Limit</b>
▶ Cold holding of TCS foods	41°F (5°C) or less
▶ Raw unpasteurized shell eggs	Stored in refrigerated equipment maintaining 45°F (7°C) or less

<b>DATE MARKING FOR READY-TO-EAT (RTE), TIME TEMPERATURE CONTROL FOR SAFETY (TCS) FOODS</b>	
<b>Process / Product</b>	<b>Critical Limit</b>
▶ Refrigerated RTE, TCS Foods: <ul style="list-style-type: none"> <li>✓ prepared in the establishment</li> <li>✓ opened package from a commercial processing plant</li> <li>✓ held for more than 24 hours</li> </ul>	<ul style="list-style-type: none"> <li>✓ 7 days at 41°F (5°C) or less</li> <li>✓ Marked to indicate the date or day the food must be consumed on the premises, sold, or discarded</li> <li>✓ Day of "preparation" or "opening is counted as "Day 1"</li> <li>✓ Date mark not to exceed manufacturer's use by date</li> </ul>
▶ RTE, TCS Foods Subsequently Frozen:	<ul style="list-style-type: none"> <li>✓ Marked at the time of freezing as to the days already held at refrigeration and upon removing from the freezer, the new "date" is 7 days minus the time held before freezing</li> </ul>

### **Some Questions for Assessing Active Managerial Control of COLD HOLDING and DATE MARKING Processes**

- How do they monitor their refrigeration units to ensure they are maintaining proper temperature?
- Are there any refrigeration/cold food storage units located outside of the kitchen area (salad bars, food transportation units, etc.)?
- Does the establishment use methods, other than storing under refrigeration, to maintain foods cold (e.g. storage in ice)?
- What kind of monitoring procedures do they implement for ensuring food is at the proper cold holding temperature?
- What type of equipment is used to check the food product temperatures? How often is this done? How do they know their temperature measuring devices are accurate?
- Do they keep temperature logs? Do they record the temperature of the refrigeration units, product temperatures, or both? (not required per the Food Code)
- How do employees know what food is to be used first (first in, first out)?
- What is their date marking procedure for ready-to-eat, TCS Food?

### **Tips for Assessing Active Managerial Control of COLD HOLDING and DATE MARKING Processes**

- Check cold holding temperatures with a thermocouple, thermistor, or other appropriate temperature measuring device. This includes the temperature of TCS food during transport (receiving trucks, cold holding carts being used to transport food to patient room in a hospital, satellite kitchens, or off-site catering events).
- DO NOT USE an infrared thermometer for verifying cold holding temperatures. Relying on surface temperatures may mask potential problems related to improper

- internal product temperatures and will not provide enough information to make an accurate assessment of cold holding procedures. In addition, inspectors should not stir cold soups and the like since it is important to know the temperature before the food is agitated.
- Open top refrigerated display cases and sandwich prep units may present significant cold holding challenges. When located across from cooking equipment or hot holding devices, these units may have a difficult time maintaining product temperatures. For refrigerated display cases, packaged food products may be stored directly on top of refrigerated air vents or placed in the case in a manner that blocks the flow of refrigerated air. Determine the system the establishment has in place for monitoring these units to ensure product temperatures are maintained at 41°F or less. An alarm system (commonly used by large grocery store chains) may not be sufficient alone in ensuring product temperatures are maintained at 41°F or less.
  - Cold holding temperature control does not stop once the product leaves the kitchen. How does the facility ensure cold holding temperatures are maintained for products sent to satellite schools, patient rooms, or other food distribution points that may be off-site? Who is responsible for monitoring the temperature once it leaves the kitchen areas? Is it the kitchen foodservice personnel or is it the nursing staff in hospital facilities? Are satellite school facilities responsible for checking temperatures when the food arrives? How is this done and reported back to the main commissary kitchen?
  - Date marking systems may use calendar dates, days of the week, color-coded marks, or another type of system. When the person in charge explains the system, is it clear to you what is expected and does it meet the Food Code requirements? Can food employees explain the system and is their version consistent with management's expectation?
  - How does the manager/food employees handle situations when they discover prepared food that has been stored in the walk-in cooler or other refrigeration unit without date marking or that has expired dates?

### C. HOT HOLDING Critical Limits

HOT HOLDING OF TIME/TEMPERATURE CONTROL FOR SAFETY (TCS) FOODS	
Process / Product	Critical Limit
▶ Hot holding of TCS foods ( <i>except roasts</i> )	135°F (57°C) or above
▶ Hot holding of roasts cooked or reheated to required time-temperatures	130°F (54°C) or above

#### Some Questions for Assessing Active Managerial Control of HOT HOLDING Processes

- How are cooked foods held until service?
- How is the temperature of hot foods controlled? Steam table, stove/oven, hot box?
- Are there any hot food storage units located outside of the kitchen area (hot food bars, food transportation units, etc.)?
- What kind of monitoring procedures do they implement for ensuring food is at the proper hot holding temperature?
- What type of equipment is used to check the food product temperatures? How often is this done? How do they know their temperature measuring devices are accurate?
- Do they keep temperature logs? Do they record the temperature of the hot holding units, product temperatures, or both?
- What corrective actions are taken when food is found out of temperature?

#### Tips for Assessing Active Managerial Control of HOT HOLDING Processes

- Check hot holding temperatures with a thermocouple, thermistor, or other appropriate temperature measuring device. This includes the temperature of TCS food during transport (hot holding carts being used to transport food to patient room in a hospital, satellite kitchens, or off-site catering events).
- DO NOT USE an infrared thermometer for verifying hot holding temperatures. Relying on surface temperatures may mask potential problems related to improper internal product temperatures and will not provide enough information to make an accurate assessment of cold holding procedures. In addition, inspectors should not stir a food before taking its temperature since it is important to know the temperature before the food is agitated.
- The geometric center of a product is usually the point of measurement; however, evaporative cooling may mean that the top layer of food is cooler than the product in the center of the container which may be nearer the heat source. Thus, additional measurements taken at points farthest from the heat source, e.g., near the product surface for food held on a steam table, may be warranted. In large holding units and on steam tables, it is necessary to take the temperatures of foods in various locations to ensure the equipment is working properly.
- If deviations are noted in hot holding temperatures, it is important to take extra steps to find out whether the problem is the result of equipment failure or a breakdown in a preceding process such as cooking or reheating.

## **D. TIME USED AS A MICROBIAL GROWTH BARRIER Critical Limits**

### **TIME USED AS A MICROBIAL GROWTH BARRIER FOR TCS FOODS**

- ▶ Written procedure must be available on-site and:
  - ✓ Identifies the foods to be held using time only as a public health control
  - ✓ Describes the procedures for implementing time without temperature as a public health control (procedures, training, monitoring, documentation)
  
- ▶ Time without temperature control is used as the public health control up to a **MAXIMUM OF 4 HOURS**
  - ✓ Food must have an initial temperature of:
    - ❖ 41°F (5°C) or less when removed from cold holding temperature control, OR
    - ❖ 135°F (57°C) or above when removed from hot holding temperature control
    - ❖ TCS Food marked or identified with the maximum 4 hour period when removed from temperature control
    - ❖ After 4 hours any remaining food product is discarded
    - ❖ Unmarked containers or packages or containers marked that exceed a 4 hour limit are to be discarded
  
- ▶ Time without temperature control is used as the public health control up to a **MAXIMUM OF 6 HOURS**
  - ✓ Food must have an initial temperature of:
    - ❖ 41°F (5°C) or less when removed from cold holding temperature control
    - ❖ Food temperature may not exceed 70°F (21°C) during the 6 hour period
    - ❖ The food shall be monitored to ensure the warmest portion of the food does not exceed 70°F (21°) during the 6-hour holding period
    - ❖ TCS Food marked to indicate time when the food is removed from 41°F (5°C) or less cold holding temperature control
    - ❖ TCS Food marked or identified with the maximum 6 hour period when removed from temperature control
    - ❖ TCS Food is discarded if the temperature of the food exceeds 70°F (21°C) OR
    - ❖ After 6 hours any remaining food product is discarded
    - ❖ Unmarked containers or packages or containers marked that exceed a 6 hour limit are to be discarded

### **Some Questions for Assessing Active Managerial Control of TIME AS A MICROBIAL GROWTH BARRIER**

- How long is TCS Food being held out of temperature before or after cooking?
- How do you monitor how long products are out of temperature control?
- Do you have specific food products for which you use time instead of temperature as a food safety control?
- What type of system do you have in place to monitor the time?
- Who is responsible for ensuring that time frames for holding product out of temperature control are not exceeded?
- What happens to food that exceeds the time frames for holding?
- For the products that you hold using time rather than temperature, what action do you take after 2 hours if it appears that all the product will not be sold or served within the 4 or 6 hour time frames?

**Tips for Assessing Active Managerial Control of  
TIME AS A MICROBIAL GROWTH BARRIER**

- Each temperature scenario for using time only as a microbial growth barrier incurs different risks in regard to the type of foodborne pathogens able to grow and the rate of growth likely to occur. For both cooling and warming conditions, growth depends on the amount of time the food spends in an optimum growth temperature range and its equilibration with its surroundings.
- Several factors influence the rate of temperature changes in a food such as the type of food, thickness of food, and the temperature differential between the food and its surroundings. When evaluating the safety of a 4-hour limit for food with no temperature control, products and environmental parameters must be selected for a worst-case scenario for pathogen growth and possible toxin production.
- Consider the type of operation that is using time as a microbial growth barrier. Are the establishment's written procedures easy to implement? Monitoring the time period for the food may be a greater challenge if the product is displayed in an area of the store that is located outside of the food preparation area such as rotisserie chicken displayed in the aisle section outside the deli area in a retail food store.
- Determining how the operation maintains clear marking of the 4 hour period of time may be difficult if multiple batches are made during the course of the day and are stored, commingled, in a display case. In this scenario, each individual product would have to be clearly marked or a system that provides distinct separation of lots would have to be established within a display or holding case.
- Having written procedures and appropriate product marking will only be effective if the individuals responsible for the procedure are properly implementing them. The individuals responsible for monitoring (and when appropriate, discarding the product) must be clearly identified.
- Holding cold food without temperature control has some additional consideration. An assessment of the products start temperature must be made to ensure it was maintained at 41°F or below prior to being removed from temperature control. Determine where these products are stored prior to using time as a public health control and evaluate the product temperature within these refrigeration units. The type of refrigeration unit and its capacity should also be considered when assessing these products.
- Holding cold food without temperature control must include a system for assuring the product temperature never exceeds 70°F. The ideal scenario would be to have a product temperature measuring device constantly recording or displaying the warmest part of the food. In many cases, an establishment may want to use alternative monitoring such as the ambient air temperature of a refrigeration unit. What steps have they taken to validate that this type of procedure is effective, and how do they verify that the system is implemented at all times?

**Tips for Assessing Active Managerial Control of  
TIME AS A MICROBIAL GROWTH BARRIER (continued)**

- Keep in mind that using time as a microbial growth barrier is an intentional use of time rather than temperature to control growth of pathogens. Corrective action of a cold holding problem may use the same principles as when time alone is used but it is different in that when time is used, the establishment needs to have a distinct system in place. The assessment should not only be on the written procedures in place, but the rotation of the product. Does the facility add product to a container under time control in busy periods or does the system incorporate procedures for completely changing out the containers? Are foods intended to be held cold without temperature control, stored or commingled with foods intended to be temperature-controlled?

# ASSESSING ACTIVE MANAGERIAL CONTROL FOR RISK FACTOR AREAS

## PERSONAL HYGIENE

*\* Reference for Active Managerial Control for this risk factor is contained in the FDA Employee Health and Personal Hygiene Handbook*

Active Managerial Control for the Personal Hygiene risk factor must include all three of the elements identified A-C below. Concurrent use of each of these three control measures will help prevent the transmission of viruses, bacteria, and protozoan oocysts from food employees to customers through contaminated food

- A. Restricting or excluding ill food employees from working with food
- B. Using proper handwashing procedures
- C. Eliminating bare hand contact with foods that are ready-to-eat

### A. EMPLOYEE HEALTH Critical Limits

- ▶ Restricting or excluding ill food employees from working with food
  - These 5 pathogens must be addressed in an establishment's employee health program. These pathogens have a low infectious dose, contaminate the gastrointestinal system after ingestion, and are shed in feces.
    - ✓ Norovirus
    - ✓ *Salmonella* Typhi (typhoid-like fever)
    - ✓ *E. coli* O157:H7, Enterohemorrhagic or Shiga toxin-producing *E. Coli*
    - ✓ *Shigella* spp.
    - ✓ Hepatitis A virus
  - These symptoms of foodborne illness must be addressed in an establishment's employee health program
    - ✓ Vomiting
    - ✓ Diarrhea
    - ✓ Jaundice (yellow skin or eyes)
    - ✓ Sore throat with fever
    - ✓ Infected cuts and burns with pus on hands and wrists
  - The manager or Person-in-Charge (PIC) is to make certain that food employees are trained on the subject of the:
    - ✓ Cause of foodborne illness
    - ✓ Relationship between the food employee's job task, personal hygiene, and foodborne illness
    - ✓ Requirement for reporting
    - ✓ Specific symptoms, diagnoses, and exposures that must be reported to the Person-in-Charge
  - Management should explain to food employees the importance of reporting specific symptoms and any diagnoses or exposures to foodborne illness. Things to be reported to management include:
    - ✓ Vomiting, diarrhea, jaundice, sore throat with fever, or any exposed boil or open, infected wounds or cuts on hands or arms
    - ✓ An illness diagnosed by a health practitioner that was caused by: *Salmonella* Typhi; *Shigella* spp.; Norovirus; Hepatitis A; or *E. coli* O157:H7 or other Enterohemorrhagic or Shiga toxin producing *E. coli*
    - ✓ Past illness with typhoid-like fever within the past 3 months unless treated with antibiotics
    - ✓ Exposure to typhoid-like fever, shigellosis, Norovirus, Hepatitis A virus, *E. coli* O157:H7 or other Enterohemorrhagic or Shiga toxin-producing *E. coli*, by eating or serving food that was implicated in a foodborne illness outbreak or if residing with a diagnosed individual.
- ▶ Exclusion and restriction policies must adhere to those provided in the decision tree tables contained in the FDA Employee Health and Personal Hygiene Handbook

**Some Questions for Assessing Active Managerial Control of EMPLOYEE HEALTH**

- What kind of policy do you have in place for handling sick employees?
- Is there a written policy? (Note: a written policy is not required in the Food Code, but having a written policy may give an indication of the formality of the policy being discussed.)
- Describe how managers and food employees are made knowledgeable about their duties and responsibilities under the employee health policy.
- Are food employees asked if they are experiencing certain symptoms or illnesses upon conditional offer of employment? If so, what symptoms or illnesses are food employees asked about? Is there a written record of this inquiry?
- What are food employees instructed to do when they are sick?
- What conditions or symptoms are reported?
- What may some indicators be of someone who is working while ill?
- When are employees restricted from working with exposed food or food contact surfaces? When are they excluded from working in the food establishment?
- For employees that are sick and cannot come to work, what policy is in place for allowing them to return and for notifying the regulatory authority?

**Tips for Assessing Active Managerial Control of EMPLOYEE HEALTH**

- In general, most individuals do not like discussing subjects related to illnesses such as diarrhea and vomiting. It will be important to put the Person-in-Charge at ease. Explaining that the Centers for Disease Control and Prevention (CDC) has identified that employees coming to work when ill is a primary contributor of foodborne illness will provide rationale to establish a common ground for communication. Including a discussion of the difficult economy and the pressure on employees to work in order to have income often helps on operator relate to the business side of the issue.
- Establishing a dialogue with the operator requires more than asking questions. In fact, an operator may feel they are being interrogated if too many questions are asked in succession. Be cognizant of the types of questions you are asking the operator. Not all the questions included in the previous Employee Health questions section need to be asked to assess the extent of an operation's employee health program or policies.
- Though it is important to look for visible signs of illnesses of wound infections at any time during the inspection, asking questions regarding an operation's employee health policy may be better addressed later in the inspection rather than the beginning. Often times this is a gap area for an operator because they haven't really thought about it in the past and regulatory agencies did not make it a priority during their inspections. Stressing a gap area in an establishment's food safety management system early on in the inspection may make the operator defensive and guarded.

### **Tips for Assessing Active Managerial Control of EMPLOYEE HEALTH**

- Employee Health can be a complex and intimidating subject for most operators who are first and foremost business people. Do not be mistaken, it is a subject they care about and know it is important to prevent ill employees from working to protect their customers and business. Much of the information pertaining to employee health will not be retained by the operator if it is based merely on an open discussion at the end of the inspection. It is important to leave a simple reference sheet or other written materials that will assist them in developing a sound employee health program. Two useful tools in this endeavor are the FDA Employee Health and Personal Hygiene Handbook or CD. These tools contain comprehensive Standard Operating Procedures and include forms for documenting food employees training and responsibilities pertaining to foodborne illnesses and their symptoms.

### **B. HANDWASHING Critical Limits**

- ▶ Using proper handwashing procedures
  - When food employees should wash their hands:
    - ✓ Immediately after engaging activities that contaminate hands
    - ✓ When entering a food preparation area
    - ✓ Before putting on clean, single-use gloves for working with food and between glove changes
    - ✓ Before engaging in food preparation
    - ✓ Before handling clean equipment and serving utensils
    - ✓ When changing tasks and switching between handling raw foods and working with ready-to-eat foods
    - ✓ After handling soiled dishes, equipment, or utensils
    - ✓ After touching bare human body parts, for example, parts other than clean hands and clean, exposed portions of arms
    - ✓ After using the toilet
    - ✓ After coughing, sneezing, blowing the nose, using tobacco, eating, or drinking
    - ✓ After caring for or handling service animals or aquatic animals such as molluscan shellfish or crustacean in display tanks
  - Handwashing procedure
    - ✓ Clean hands and exposed portions of arms, including surrogate prosthetic devices for hands and arms, for at least 20 seconds using the following procedure:
      - 1) Rinse under clean, warm running water
      - 2) Apply soap and rub all surfaces of the hands and fingers together vigorously with friction for at least 10 to 15 seconds, giving particular attention to the area under the fingernails, between the fingers/fingertips, and surfaces of the hands, arms, and surrogate prosthetic devices
      - 3) Rinse thoroughly with clean, warm running water
      - 4) Thoroughly dry the hands and exposed portions of arms with single-use paper toweling, a heated-air hand-drying device, or a clean, unused towel system that supplies the user with a clean towel
    - ✓ Avoid recontamination of hands and arms using a clean barrier, such as a paper towel, when turning off hand sink faucets or touching the handle of a restroom door

### **Some Questions for Assessing Active Managerial Control of HANDWASHING**

- How do employees know when to wash their hands and what method to use?
- What type of system do you have in place to ensure employees wash their hands when you expect them to do so?
- Who is responsible for checking to see that employees practice good handwashing procedures?
- What action is taken when an employee is observed not washing their hands when you expect them to do so?
- What type of system do you have in place to ensure that handsinks are continually stocked with hand soap and paper towels (or hand drying devices)?
- Do you use any techniques or methods to encourage employees to wash their hands?
- Do you maintain any type of documentation that attempts to monitor employees' handwashing within the kitchen area?

### **Tips for Assessing Active Managerial Control of HANDWASHING**

- Conducting an assessment of proper and adequate handwashing procedures in an establishment requires patience. A snap shot observation of a poor employee practice may not provide enough information to gain an understanding of the root cause of the problem. The lack of handwashing and improper handwashing methods are not always directly attributed to an employee failing to follow good practices. Observations of the entire food preparation procedure can uncover environmental antecedents to poor handwashing such as: the volume of foods being prepared, activity level in the establishment, location of handwashing facilities and an employee's ability to reach them, and lack of training or monitoring by food service management. In order to change employee behavior, it is essential to identify the root cause of the problem.
- It is important to know what the management's handwashing policy is. Not only can an assessment be made as to whether the establishment's policy adequately addresses all aspects of proper handwashing, but it can provide an indication as to whether the employees are following the procedure as described by management. This can provide an indication as to the level of awareness and training employees are receiving regarding the importance of handwashing.
- Having the foodservice manager or person-in-charge with you during the assessment of handwashing can help establish a common understanding of the root causes that might be contributing to poor practices. Management can observe first-hand the employee practices that have the potential to put their business at risk. The person-in-charge will begin to recognize that they need to reinforce the importance of proper handwashing procedures on a continual basis and have a method for providing feedback to all employees on how well they are doing.
- Having the person-in-charge/manager with you during the inspection provides an opportunity to assess what corrective actions are in place to address poor handwashing practices. If management observes poor handwashing, do they implement the type of corrective action they have described? If not, why not?

### **C. NO BARE HAND CONTACT WITH READY-TO-EAT FOODS Critical Limits**

- ▶ No bare hand contact with foods that are ready-to-eat
  - Bare hand contact with a ready-to-eat food such as sandwiches and salads can result in contamination of food and contribute to foodborne illness outbreaks. Food employees should always use suitable utensils such as spatulas, tongs, single-use gloves, or dispensing equipment when handling ready-to-eat foods.
  - Single-use gloves used along with handwashing can be an effective barrier to decrease the transfer of microorganisms from the hand to the food. Gloves are not total barriers to microbial transmission and will not be an effective barrier alone for food workers without education on proper glove use and handwashing requirements. Procedures for the use of single-use gloves include:
    - ✓ Always wash hands before donning gloves
    - ✓ Change disposable gloves between handling raw products and ready-to-eat products
    - ✓ Do not wash or reuse disposable gloves
    - ✓ Discard torn or damaged disposable gloves
    - ✓ Cover an infected lesion with pus (e.g. cut, burn, or boil) with a waterproof covering and disposable glove
    - ✓ Wear disposable gloves over artificial nails, nail polish, or uncleanable orthopedic support devices
  - The Food Code only allows bare hand contact with ready-to-eat food when the regulatory authority has granted prior approval for alternative procedure. The alternative procedure must address the management of food employees and related food handling activities to prevent food contamination, including the enforcement of thorough handwashing practices after toilet use.
  - The 2011 Supplement to the 2009 Food Code allows bare hand contact with ready-to-eat foods that are being added as an ingredient to a food that:
    - ✓ contains a raw animal food and is to be cooked in the establishment to required minimum temperatures, OR
    - ✓ does not contain raw animal food but is to be cooked in the food establishment to heat all parts of the food to 165°F (74°C)

#### **Some Questions for Assessing Active Managerial Control of NO BARE HAND CONTACT WITH READY-TO-EAT FOODS**

- Where do you prepare your salads?
- At what times of day do you prepare salads, slice fruits, or prepare cold-cut lunch meat sandwiches?
- Who is responsible for expediting the bread rolls and salads to the customer?  
Where does this process take place?
- What procedures are employees expected to follow when working with ready-to-eat foods?
- Can you describe the system you have in place to ensure employees that work with ready-to-eat foods follow your operational procedures?
- What action would be taken if you observed one of your food employees handling ready-to-eat foods with their bare hands?
- Do you slice, wash, or prepare any ready-to-eat foods that will be subsequently added as an ingredient to a food product that will be cooked?
- Do you conduct any ready-to-eat food processes for which an alternative procedure is in place to no bare hand contact? Is this alternative procedure in

- written form? Can you describe the alternative procedure? Have you submitted it to the health department for review?
- How do you know which foods can be touched with bare hands? (If using the Supplement to the 2009 Food Code)

**Tips for Assessing Active Managerial Control of  
NO BARE HAND CONTACT WITH READY-TO-EAT FOODS**

- In order to conduct an assessment of No Bare Hand Contact it is important to have knowledge of the menu items that are intended to be served as ready-to-eat foods. Salads, cold lunch meat sandwiches, fruit bowls, or salads containing fruit usually have a designated preparation area within the kitchen. Identifying the location where ready-to-eat foods are prepared will provide an opportunity to observe food preparation procedures. Much like handwashing, it is important to observe the entire procedure/process in order to identify potential root causes for the occurrence of bare hand contact with ready-to-eat foods.
- It is also important to know what methods management has established in their procedures to ensure no bare hand contact with ready-to-eat foods. In many foodservice operations, multiple methods such as the use of single-use gloves, utensils, paper wraps, etc. are employed to prevent bare hand contact with ready-to-eat foods. Often, these are task-specific. Some operations may provide options for the employee (single-use gloves or utensils). Understanding the expected methods to prevent bare hand contact with ready-to-eat foods will provide a foundation for assessing how well employees have been trained and give an indication as to whether a system is in place to ensure operational procedures are being followed.
- An assessment of no bare hand contact with ready-to-eat should also include observations of foodservice personnel that may not be assigned to the kitchen area. In many operations, wait staff have responsibilities for dispensing bread, desserts, salads, and other ready-to-eat foods. The other side of the cook/make line, where food orders are picked up by wait staff, should be a focus point for observing procedures designed to prevent no bare hand contact with ready-to-eat foods. Industry refers to this part of the operation as the Expo Area (expediting the orders to the customer). In addition, fruits such as limes and lemons intended for drinks are sometimes sliced in the bar area. Active managerial control of no bare hand contact with ready-to-eat foods needs to extend to these external kitchen areas as well.
- Keep in mind that no bare hand contact with ready to eat foods is only one component of active managerial control of poor personal hygiene. An assessment of handwashing and employee health must always be conducted in conjunction with no bare hand contact.

## ASSESSING ACTIVE MANAGERIAL CONTROL FOR RISK FACTOR AREAS

### PREVENTION OF CONTAMINATION/ CONTAMINATED EQUIPMENT

#### SUMMARY: PREVENTION OF CONTAMINATION AREAS

- A. Assessing Active Managerial Control of Separation of Raw Animal Foods from Ready-to-Eat Foods
- B. Separation of Raw Animal Foods of Different Species

#### SUMMARY: CONTAMINATED EQUIPMENT AREAS

- C. Assessing Active Managerial Control of Cleaning Frequency
- D. Assessing Active Managerial Control of Cleaning and Sanitation of Food Contact Surfaces

#### **A. SEPARATION OF RAW ANIMAL FOODS FROM READY-TO-EAT FOODS Critical Limits**

- ▶ Preventing Cross contamination
  - Food shall be protection from cross contamination by separating raw animal foods during storage, preparation, holding, and display from:
    - ✓ Ready-to-eat foods including other raw animal food such as fish for sushi or molluscan shellfish or other raw ready-to-eat food such as fruits and vegetables
    - ✓ Cooked ready-to-eat food
  - **NOTE:** Frozen commercially processed and packaged raw animal food may be stored or displayed with or above frozen, commercially processed and packaged, ready to eat food

#### **B. SEPARATION OF RAW ANIMAL FOODS OF DIFFERENT SPECIES Critical Limits**

- ▶ Preventing Cross contamination
  - Food shall be protection from cross contamination by separating types of raw animal foods from each other such as beef, fish, lamb, pork, and during storage, preparation, holding, and display by:
    - ✓ Using separate equipment for each type, or
    - ✓ Arranging each type of food in equipment so that cross-contamination of one type with another is prevented, and
    - ✓ Preparing each type of food at different times or separate areas
  - Not storing and displaying comminuted or otherwise non-intact meats above whole-muscle intact cuts of meat unless they are packages in a manner that precludes the potential for cross contamination

**Some Questions for Assessing Active Managerial Control for  
PREVENTING CONTAMINATION OF FOODS**

- Describe your system for storing raw animal foods in the walk-in cooler?
- Where are ready-to-eat foods that require refrigeration stored before service?
- How do food employees know which food products go on what shelves in the walk-in cooler?
- What steps do you use to prevent cross-contamination in the food preparation area?
- How do you verify that foods are being stored, prepared, held, and displayed to prevent cross-contamination? How often is this verification done?

**Tips for Assessing Active Managerial Control for  
PREVENTING CONTAMINATION OF FOODS**

- Ask questions about the locations for the preparation of ready-to-eat foods and raw foods of animal origin. Gaining an understanding of the flow of food as it is prepared in the food establishment may uncover potential opportunities for cross-contamination. Most establishments have a system or production schedule for preparing different products during the course of the day.
- One of the preparation focus points should be the food preparation sink. Most foodservice operations have only one designated food preparation sink that is often used to wash ready-to-eat vegetables/fruits AND thaw raw animal food items such as fish or other seafood items. What system does the facility have in place to prevent cross-contamination for the multiple varieties of foods that are processed using the food preparation sink?
- High volume areas like grill lines sometimes require food employees to work with both ready-to-eat and raw animal foods. What system or procedures does the operation have in place to prevent cross-contamination from utensils such as tongs and spatulas? How are work responsibilities delegated between employees? Has the management of the operation given any thought to segregating out work responsibilities based on preventing cross-contamination (Example: one employee only works with ready-to-eat foods and another with raw animal food products)?
- Observing the entire preparation procedure can provide a more complete picture of the establishment's active managerial control for preventing cross-contamination. What happens to the containers and utensils that have been used to transport and dispense raw animal food products to preparation areas? Are the same utensils or containers used to remove and store the cooked product?
- Observe whether practices are in place to eliminate the potential for contamination of food, utensils, equipment, or single-service items from environmental contamination. For example, handwashing sinks and fixtures may be located where splash may contaminate food contact surfaces or food. Splash guards may need to be installed or food contact surface relocated to prevent contamination.

**Tips for Assessing Active Managerial Control for  
PREVENTING CONTAMINATION OF FOODS (continued)**

- Raw animal foods stored on shelves in refrigeration units should be separated by cooking temperatures such that food requiring a higher cooking temperature like chicken is stored below or away from foods requiring a lower cooking temperature like pork and beef. If foods are not being cooled, they should be covered or packaged while in storage.

**C. Critical Limits for CLEANING & SANITIZING OF FOOD CONTACT SURFACES**

▶ **Cleaning and Sanitizing Frequency**

- Food contact surfaces and utensils shall be cleaned and sanitized each time:
  - ✓ There is a change from working with raw animal foods to ready-to-eat foods
  - ✓ Between uses with raw fruits and vegetables and with time-temperature control for safety foods
  - ✓ Before using or storing food temperature measuring devices
  - ✓ Contamination may have occurred, such as dropping a utensil on the floor
  - ✓ Before each use of raw animal food (except in contact with a succession of different raw animal foods each requiring a higher cooking temperature than the previous food, such as raw fish followed by cutting / preparation or raw poultry)
- Cleaning frequency based on ambient temperature of the refrigerated room or areas:

Preparation Room Temperature	Cleaning Frequency	Refrigerated room temperatures and cleaning frequency to be documented
41°F (5°C) or less	24 hours	
> 41°F (5°C) to 45°F (7.2°C)	20 hours	
> 45°F (7.2°C) to 50°F (10.0°C)	16 hours	
> 50°F (10.0°C) to 55°F (12.8°C)	10 hours	
> 55°F (12.8°C) unrefrigerated rooms	4 hours	

- Cleaning frequency time-temperature control for safety foods – food contact surfaces:
  - ✓ In storage, containers of time-temperature control for safety foods (maintained at proper refrigeration temperatures and date marked) are cleaned when emptied.
  - ✓ Containers in serving situations such as salad bars that maintained and refilled with time-temperature control for safety foods, are cleaned at least every 24 hours.
  - ✓ In-use utensils intermittently stored in a container of hot water at  $\geq 135^{\circ}\text{F}$  are cleaned every 24 hours or more frequently to preclude accumulation of soil residues.
- Cleaning frequency non-time temperature control for safety foods – food contact surfaces:
  - ✓ Utensils and equipment – at any time when contamination may have occurred
  - ✓ At least every 24 hours for ice tea dispensers and consumer self service utensils
  - ✓ Before restocking consumer self-service equipment and utensils
  - ✓ In or enclosed components of equipment such as ice bins, ice makers, beverage nozzles and syrup dispensing lines/tubes, cooking oil storage tanks and distribution lines, coffee bean grinders, and water vending equipment; as specified by the manufacturer or as necessary to preclude accumulation of soil residues.

**D. Critical Limits for CLEANING AND SANITIZING OF FOOD CONTACT SURFACES**

► **Cleaning and Sanitizing Procedures / Critical Limits**

➤ **Sanitation: Concentration, pH, Temperature, Hardness and Contact Time**

Minimum Concentration (ppm or mg/L)	pH ≤ 10.0 and Minimum Temperature	pH ≤ 8.0 and Minimum Temperature	Contact Time
Chlorine 25	120°F (49°C)	120°F (49°C)	≥ 10 seconds
Chlorine 50	100°F (38°C)	75°F (24°C)	≥ 7 seconds
Chlorine 100	55°F (13°C)	55°F (13°C)	≥ 10 seconds
Iodine ≥ 12.5 to 25	pH ≤ 5.0 or per label; 75°F (24°C)		≥ 30 seconds
Quaternary Ammonium (per label)	water hardness ≤ 500 ppm or mg/L or per label; ≥ 75°F (24°C)		
Hot Water Sanitize 3 compartment sink w/ Integral heating device	≥ 171°F (77°C) immersed in rack or basket		

NOTE: All chemical sanitizers shall be listed in 21 CFR 178.1010 Sanitizing Solutions and used in accordance with EPA-approved manufacturer's label use instructions

➤ **Warewashing: Mechanical and Manual**

WAREWASHING MECAHNICAL & MANUAL		Minimum Wash Temperature	Minimum Sanitizing Temperature
SPRAY TYPE WAREWASHERS Single Tank, Hot Water Sanitize	Stationary rack, single temperature	165°F (74°C)	165°F (74°C)
	Stationary rack dual temperature	150°F (66°C)	180°F (82°C)
	Conveyor, dual temperature	160°F (71°C)	
Multi-tank, Hot Water Sanitize	Conveyor, multi temperature	150°F (66°C)	Sanitization levels as stated in the above table or per labeled manufacturer's instructions on the container
Chemical Sanitize	Any warewashing machine	120°F (49°C)	
3 Compartment Sink	Cleaning agent labeling may permit lower washing temperatures	110°F (43°C)	

**Some Questions for Assessing Active Managerial Control for  
CLEANING AND SANITIZING FOOD CONTACT SURFACES**

- Can you demonstrate how the 3-compartment sink is set-up when equipment and utensils are soiled and need to be cleaned?
- How do you know that the sanitizer concentration is correct?
- What procedures do you have in place to ensure that the dishmachine is operating properly?
- Describe the method you use to clean the meat slicer?
- Who is responsible for cleaning the food preparation sink? What procedure is used?
- How does an employee know that the food preparation sink was previous cleaned and sanitized before they use it to prepare food?
- Do you have a cleaning schedule for food equipment that cannot be sent thorough the dishmachine or cleaned in the three compartment sink?

**Tips for Assessing Active Managerial Control for  
CLEANING AND SANITIZING FOOD CONTACT SURFACES**

- Special attention needs to be given to the cleaning and sanitizing procedure for work stations where both raw animal food products and ready-to-eat foods are processed during the course of the day. Is there a planned system or schedule for what types of foods are prepared during the course of the day? For example, are ready-to-eat food processed before raw animal foods OR is preparation done on an as-needed basis. While this assessment is important for all operations, it is especially critical for smaller establishments that may have limited space for food preparation.
- In addition to the schedule and flow of food preparation, it is important to obtain an understanding of who is responsible for ensuring that a food preparation surfaces has been cleaned and sanitized. Is it the responsibility of the person who completed preparing food on the work surface/sink or is it the responsibility of the person who will be using the surface to clean and sanitize it before placing foods on a work table or in a preparation sink? Understanding these types of systems will provide insights as to how well the cleaning and sanitizing procedure is monitored throughout the facility.
- An assessment of wiping cloths used for food contact surfaces requires more than just checking the sanitizer concentration of the solution in the wiping cloth buckets. Observe how, when, and on what surfaces food employees use the wiping cloth. Is it being used to clean surfaces that have accumulated heavy amounts of organic material or may have been used to process raw animal foods? Keep in mind that sanitizers will only be effective if the surface has been cleaned /rinsed first. High volume work areas like grill lines may create challenges for employees to effectively clean and sanitize food contact surfaces.

# HACCP-Based SOPs

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## Holding Hot and Cold Potentially Hazardous Foods (Sample SOP)

**PURPOSE:** To prevent foodborne illness by ensuring that all potentially hazardous foods are held under the proper temperature.

**SCOPE:** This procedure applies to foodservice employees who prepare or serve food.

**KEY WORDS:** Cross-Contamination, Temperatures, Holding, Hot Holding, Cold Holding, Storage

### INSTRUCTIONS:

1. Train foodservice employees on using the procedures in this SOP. Refer to the Using and Calibrating Thermometers SOP.
2. Follow State or local health department requirements.
3. If State or local health department requirements are based on the *2001 FDA Food Code*:
  - Hold hot foods at 135 °F or above
  - Hold cold foods at 41 °F or below
4. Preheat steam tables and hot boxes.

### MONITORING:

1. Use a clean, sanitized, and calibrated probe thermometer to measure the temperature of the food.
2. Take temperatures of foods by inserting the thermometer near the surface of the product, at the thickest part, and at other various locations.
3. Take temperatures of holding units by placing a calibrated thermometer in the coolest part of a hot holding unit or warmest part of a cold holding unit.
4. For hot foods held for service:
  - Verify that the air/water temperature of any unit is at 135 °F or above before use.
  - Reheat foods in accordance with the Reheating for Hot Holding SOP.
  - All hot potentially hazardous foods should be 135 °F or above before placing the food out for display or service.
  - Take the internal temperature of food before placing it on a steam table or in a hot holding unit and at least every 2 hours thereafter.

## HACCP-Based SOPs

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### Temperature Log

**Instructions:** Record product name, time, the temperature, and any corrective action taken on this form. The foodservice manager will verify that foodservice employees have taken the required holding temperatures by visually monitoring foodservice employees and preparation procedures during the shift and reviewing, initialing, and dating this log daily. Maintain this log for a minimum of 1 year.

## HACCP-Based SOPs

Date and Time	Food Item	Internal Temperature	Corrective Action Taken	Initials	Verified By/ Date

# HACCP-Based SOPs

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## Cooking Potentially Hazardous Foods (Sample SOP)

**PURPOSE:** To prevent foodborne illness by ensuring that all foods are cooked to the appropriate internal temperature.

**SCOPE:** This procedure applies to foodservice employees who prepare or serve food.

**KEY WORDS:** Cross-Contamination, Temperatures, Cooking

### INSTRUCTIONS:

1. Train foodservice employees on using the procedures in this SOP. Refer to the Using and Calibrating Thermometers SOP.
2. Follow State or local health department requirements.
3. If a recipe contains a combination of meat products, cook the product to the highest required temperature.
4. If State or local health department requirements are based on the *2001 FDA Food Code*, cook products to the following temperatures:
  - a. 145 °F for 15 seconds
    - Seafood, beef, and pork
    - Eggs cooked to order that are placed onto a plate and immediately served
  - b. 155 °F for 15 seconds
    - Ground products containing beef, pork, or fish
    - Fish nuggets or sticks
    - Eggs held on a steam table
    - Cubed or Salisbury steaks
  - c. 165 °F for 15 seconds
    - Poultry
    - Stuffed fish, pork, or beef
    - Pasta stuffed with eggs, fish, pork, or beef (such as lasagna or manicotti)
  - d. 135 °F for 15 seconds
    - Fresh, frozen, or canned fruits and vegetables that are going to be held on a steam table or in a hot box

# HACCP-Based SOPs

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## Cooking Potentially Hazardous Foods, continued (Sample SOP)

### MONITORING:

1. Use a clean, sanitized, and calibrated probe thermometer, preferably a thermocouple.
2. Avoid inserting the thermometer into pockets of fat or near bones when taking internal cooking temperatures.
3. Take at least two internal temperatures from each batch of food by inserting the thermometer into the thickest part of the product which usually is in the center.
4. Take at least two internal temperatures of each large food item, such as a turkey, to ensure that all parts of the product reach the required cooking temperature.

### CORRECTIVE ACTION:

1. Retrain any foodservice employee found not following the procedures in this SOP.
2. Continue cooking food until the internal temperature reaches the required temperature.

### VERIFICATION AND RECORD KEEPING:

Foodservice employees will record product name, time, the two temperatures/times, and any corrective action taken on the Cooking and Reheating Temperature Log. Foodservice manager will verify that foodservice employees has taken the required cooking temperatures by visually monitoring foodservice employees and preparation procedures during the shift and reviewing, initialing, and dating the temperature log at the close of each day. The Cooking and Reheating Temperature Log is to be kept on file for a minimum of 1 year.

DATE IMPLEMENTED: \_\_\_\_\_ BY: \_\_\_\_\_

DATE REVIEWED: \_\_\_\_\_ BY: \_\_\_\_\_

DATE REVISED: \_\_\_\_\_ BY: \_\_\_\_\_

## HACCP-Based SOPs

Date and Time	Food Item	Internal Temperature/ Time	Internal Temperature/ Time	Corrective Action Taken	Initials	Verified By/ Date

## HACCP-Based SOPs

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### Cooking and Reheating Temperature Log

**Instructions:** Record product name, time, the two temperatures/times, and any corrective action taken on this form. The foodservice manager will verify that foodservice employees have taken the required cooking temperatures by visually monitoring foodservice employees and preparation procedures during the shift and reviewing, initialing, and dating this log daily. Maintain this log for a minimum of 1 year.

# HACCP-Based SOPs

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## Date Marking Ready-to-Eat, Potentially Hazardous Food (Sample SOP)

**PURPOSE:** To ensure appropriate rotation of ready-to-eat food to prevent or reduce foodborne illness from *Listeria monocytogenes*.

**SCOPE:** This procedure applies to foodservice employees who prepare, store, or serve food.

**KEY WORDS:** Ready-to-Eat Food, Potentially Hazardous Food, Date Marking, Cross-Contamination

### INSTRUCTIONS:

1. Train foodservice employees on using the procedures in this SOP. The best practice for a date marking system would be to include a label with the product name, the day or date, and time it is prepared or opened. Examples of how to indicate when the food is prepared or opened include:
  - Labeling food with a calendar date, such as “cut cantaloupe, 5/26/05, 8:00 a.m.”
  - Identifying the day of the week, such as “cut cantaloupe, Monday, 8:00 a.m.” or
  - Using color-coded marks or tags, such as cut cantaloupe, blue dot, 8:00 a.m. means “cut on Monday at 8:00 a.m.”
2. Follow State or local health department requirements.
3. Label ready-to-eat, potentially hazardous foods that are prepared on-site and held for more than 24 hours.
4. Label any processed, ready-to-eat, potentially hazardous foods when opened, if they are to be held for more than 24 hours.
5. Refrigerate all ready-to-eat, potentially hazardous foods at 41 °F or below.
6. Serve or discard refrigerated, ready-to-eat, potentially hazardous foods within 7 days.
7. Indicate with a separate label the date prepared, the date frozen, and the date thawed of any refrigerated, ready-to-eat, potentially hazardous foods.
8. Calculate the 7-day time period by counting only the days that the food is under refrigeration. For example:
  - On Monday, 8/1/05, lasagna is cooked, properly cooled, and refrigerated with a label that reads, “Lasagna, Cooked, 8/1/05.”
  - On Tuesday, 8/2/05, the lasagna is frozen with a second label that reads, “Frozen, 8/2/05.” Two labels now appear on the lasagna. Since the lasagna was held under refrigeration from Monday, 8/1/05 – Tuesday, 8/2/05, only 1 day is counted towards the 7-day time period.

# HACCP-Based SOPs

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## Date Marking Ready-to-Eat, Potentially Hazardous Food, continued

(Sample SOP)

### INSTRUCTIONS, continued:

- On Tuesday 8/16/05 the lasagna is pulled out of the freezer. A third label is placed on the lasagna that reads, "Thawed, 8/16/05." All three labels now appear on the lasagna. The lasagna must be served or discarded within 6 days.

### MONITORING:

A designated employee will check refrigerators daily to verify that foods are date marked and that foods exceeding the 7-day time period are not being used or stored.

### CORRECTIVE ACTION:

1. Retrain any foodservice employee found not following the procedures in this SOP.
2. Foods that are not date marked or that exceed the 7-day time period will be discarded.

### VERIFICATION AND RECORD KEEPING:

The foodservice manager will complete the Food Safety Checklist daily. The Food Safety Checklist is to be kept on file for a minimum of 1 year.

DATE IMPLEMENTED: \_\_\_\_\_ BY: \_\_\_\_\_

DATE REVIEWED: \_\_\_\_\_ BY: \_\_\_\_\_

DATE REVISED: \_\_\_\_\_ BY: \_\_\_\_\_

## Suggested Immediate Corrective Actions and Intervention Strategies for Achieving Long-Term Compliance of Out-of-Control Procedures

Out-of-Control Procedure	Associated Hazards	Immediate Correction Action(s)	Intervention Strategies for Achieving Long-term Compliance
Bare Hand Contact with RTE Food	Bacteria, Parasites, and Viruses via Fecal-oral Route	Conduct Hazard Analysis. See participant manual for additional guidance.	RCP, Train Employees, SOP/HACCP Development
Cold Holding	Vegetative Bacteria, Toxin-forming and Spore-forming Bacteria, Scombrotoxin (Finfish)	Conduct Hazard Analysis. See participant manual for additional guidance.	Change Equipment, RCP, Train Employees, Develop SOP/HACCP/Recipe
Contaminated Equipment	Bacteria, Parasites, and Viruses	Clean and Sanitize Equipment; Discard or Reheat RTE Food.	Train Employees, Change Equipment or Layout, Develop SOP
Cooking	Vegetative Bacteria, Parasites, and Possibly Viruses	Continue Cooking to Proper Temperature.	Change Equipment, RCP, Train Employees, Develop SOP/HACCP/Recipe
Cooling	Toxin-forming and Spore-forming Bacteria	Conduct Hazard Analysis. See participant manual for additional guidance.	Change Equipment, RCP, Train Employees, Develop SOP/HACCP/Recipe
Cross-Contamination of RTE Foods with Raw Animal Foods	Bacteria, Parasites, and Possibly Viruses	Discard or Reheat RTE Food.	Change Equipment Layout, RCP, Train Employees, Develop SOP/HACCP/Recipe
Food Source/ Sound Condition	Bacteria/Parasites/ Viruses/Scombrotoxin/ Ciguatera Toxin	Reject or Discard.	Change Buyer Specifications, Train Employees
Freezing to Control Parasites	Parasites	Freeze Immediately; Discard; or Cook.	Change Buyer Specifications, RCP, Develop SOP/HACCP/Recipe, Change Equipment, Train Employees
Handwashing	Bacteria, Viruses, and Parasites	Wash Hands Immediately; Conduct Hazard Analysis. See participant manual for additional guidance.	Change Equipment Layout, Train Employees, RCP, Develop SOP/HACCP
Hot Holding	Toxin-forming and Spore-forming Bacteria	Conduct Hazard Analysis. See participant manual for additional guidance.	Change Equipment, RCP, Train Employees, Develop SOP/HACCP/Recipe
Receiving Temperatures	Scombrotoxin, Bacteria	Reject or Discard.	Change Buyer Specifications, Train Employees, Develop SOP/HACCP/Recipe
Reheating for Hot Holding	Vegetative Bacteria; Toxin-forming and Spore-forming Bacteria	Conduct Hazard Analysis. See participant manual for additional guidance.	Change Equipment, RCP, Train Employees, Develop SOP/HACCP/Recipe

## EXAMPLE RISK CONTROL PLAN

<b>Establishment Name:</b> Hamburger Heaven		<b>Type of Facility:</b> Fast Food (risk category 3)	
<b>Physical Address:</b> 1234 Anywhere Street		<b>Person in Charge:</b> Sam Jones	
<b>City:</b> Nice	<b>State:</b> GA	<b>Zip:</b> 12345	<b>County:</b> Wayne
<b>Inspection Time In:</b> 8:00 am	<b>Inspection Time Out:</b> 10:00 am	<b>Date:</b> 1/22/12	<b>Inspector's Name:</b> Jane Smith
<b>Agency:</b> State Health Department			

**Specific observation noted during inspection:**

Hamburger cooked to 130°F on grill.

**Applicable code violation(s): - (Optional)**

3-401.11(A)(2)

**Risk factor to be controlled:**

Cooking

**Hazard (most common, significant):**

*Salmonella; E. coli O157:H7*

**What must be achieved to gain compliance in the future:**

Continue to cook until internal temperature of 68°C (155°F) is met. Use a thin probe thermometer to check the final cooking temperature. Establish cooking procedures for ground beef.

**How will active managerial control be achieved:**

(Who is responsible for the control, what monitoring and record keeping is required, who is responsible for monitoring and completing records, what corrective actions should be taken when deviations are noted, how long is the plan to continue)

Temperature checks of hamburger patties will be taken using appropriate temperature measuring devices on every batch of hamburgers cooked by assigned staff, i.e. chef, manager, line cook.

Sam Jones will record the temperature on his production chart.

Hamburgers with a temperature below 68°C (155°F) will be returned to the grill for further cooking to internal temperature of 68°C (155°F). Final temperature will be noted on the production chart.

**How will the results of implementing the RCP be communicated back to the inspector:**

Temperature records will be faxed to Jane Smith at 404-123-4567 each Friday for 4 weeks.

As the person in charge of the HAMBURBER HEAVEN located at 1234 Anywhere Street, Nice, GA. I have voluntarily developed this risk control plan, in consultation with INSPECTOR JANE SMITH and understand the provisions of this plan.

*Sam Jones*

*1/22/12*

\_\_\_\_\_  
(Establishment Manager)

\_\_\_\_\_  
(Date)

*Jane Smith*

*1/22/12*

\_\_\_\_\_  
(Regulatory Official)

\_\_\_\_\_  
(Date)

**STANDARD OPERATING PROCEDURE  
WORKSHEET**

**Participant Name:**

**Specific observation noted during inspection:**

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**GAPS NOTED:**

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**Applicable code violation(s): - (Optional)**

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**Risk factor to be controlled:**

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**Hazard (most common, significant):**

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**What must be achieved to gain compliance in the future:**

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**SOP TITLE:**

**WHO IS RESPONSIBLE FOR EXECUTING THIS SOP?:**

**WHAT WILL BE DONE IN THE EXECUTION OF THIS SOP?:**

**WHERE AND WHEN WILL THIS SOP APPLY?:**

**HOW WILL THE EXECUTION OF THIS SOP BE VERIFIED (BY WHOM, WHAT WILL BE DONE AND HOW OFTEN)?:**

**REGULATORY FOLLOW UP, IF ANY:**

## Notice of Intent to Suspend or Revoke Permit

COUNTY: Random County

NAME: Be sure to ensure that this information is accurate and complete.  
 STREET: \_\_\_\_\_  
 CITY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_ TIME \_\_\_\_\_

**Dear Owner or Operator:**

**Your establishment has been inspected in accordance with the laws and rules governing:**

<input checked="" type="checkbox"/> food and lodging establishments in North Carolina General Statutes 130A-247 through 130A-250 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .2600 and related rules.	<input type="checkbox"/> public swimming pools in North Carolina General Statutes 130A-280 through 282 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .2500 and related rules.	<input type="checkbox"/> tattooing in North Carolina General Statutes 130A-283 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .3200 and related rules.
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As a result of an inspection, the Department has determined that the establishment is in violation of Title 15A, Subchapter 18A, of the North Carolina Administrative Code, due to the following noncompliant items:

**VIOLATIONS NOTED – Please List**

<b>15A NCAC 18A .2655 - Water, Plumbing, and Waste // 5-205.15 System Maintained in Good Repair</b>
<b>5-205.11 Using a Handwashing Sink</b>
<b>15A NCAC 18A .2652 Management and Personnel / 2-301.12 Cleaning Procedures</b>

<input checked="" type="checkbox"/> This letter is to notify you that based on these violations of the laws and rules, the Department <b>INTENDS TO SUSPEND</b> your permit or transitional permit thirty (30) days from the date of this notice.  If the health department determines that all of the violations have been corrected before thirty (30) days expire, the suspension will not go into effect.	<input type="checkbox"/> This letter is to notify you that based on these violations of the laws and rules, the Department <b>INTENDS TO REVOKE</b> your permit or transitional permit thirty (30) days from the date of this notice.  If the health department determines that all of the violations have been corrected before thirty (30) days expire, the revocation will not go into effect.
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You have a right to a formal appeal of this decision. To pursue a formal appeal, you must file a petition for a contested case hearing with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. To get a copy of a petition form, you may write the Office of Administrative Hearings or call the office at (919) 431-3000. The petition for a contested case hearing must be filed in accordance with the provisions of North Carolina General Statutes 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B.

**PLEASE NOTE:** If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER**. Meeting the 30-day deadline is critical to your right to a formal appeal. Do not wait for the outcome of any informal review or appeal if you wish to file a formal appeal.

If you file a petition for a contested case hearing with the Office of Administrative Hearings, you are required by Law (N.C. General Statutes 150B-23) to serve a copy of your petition on the state agency that is a party to the action. The state agency party in this case is the North Carolina Department of Health and Human Services. Service must be made in accordance with Rule 4 of the North Carolina Rules of Civil Procedure and 26 NCAC 3 .0102(a)(3). You must send the copy to: Office of General Counsel, N.C. Department of Health and Human Services, 2001 Mail Service Center, Raleigh, NC 27699-2001. Do NOT send the copy of your petition to your local health department. Sending a copy of your petition to the local health department will NOT satisfy the legal requirements in N.C. General Statute 150B-23 that you serve a copy on the state agency that is a party to this action.

If you properly file a formal appeal by filing a petition for a contested case hearing in accordance with all statutory requirements prior to the expiration of thirty (30) days, the suspension or revocation shall be stayed pending a final decision by the state agency in the contested case. If you do not either correct the violations or petition for a contested case hearing within thirty (30) days, the suspension shall become effective at the end of thirty (30) days. If suspended, the health department must determine that all of the violations have been corrected before the suspension will be lifted.

You may also request an informal review of this decision in accordance with 15A NCAC 18A .2643. You may call or write the local health department if you need any additional information or assistance.

**Do not forget to get this signature and provide the form to PIC because of appeal rights.**

\_\_\_\_\_  
Signature of Environmental Health Specialist

\_\_\_\_\_  
Signature of Recipient

**Purpose:** General Statute 130A-23 gives the Secretary the power to suspend or revoke a permit issued pursuant to Chapter 130A, under certain conditions. This form is developed to be used for suspensions or revocations. **Preparation:** Local environmental health specialists shall complete form EHS 4009A whenever an "Intent-to-Suspend or Revoke" is issued. 1. Original to be left with responsible person 2. Copy for the local health department. 3. Copy for Environmental Health Section. **Disposition:** Please refer to Standard-8.B.6, Inspection Records, Records Retention and Disposition Schedule form County/District Health Departments, published by the North Carolina Division of Archives and History. Additional forms may be ordered from: Environmental Health Section, 1632 Mail Service Center, Raleigh, NC 27699-1632 (Courier 52-01-00)

## NOTICE OF IMMEDIATE PERMIT SUSPENSION OR REVOCATION

NAME: **Be sure that the information in this section is complete and** ID: \_\_\_\_\_

STREET: **correct before submitting.** \_\_\_\_\_

CITY: \_\_\_\_\_ DATE: \_\_\_\_\_

STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_ COUNTY: \_\_\_\_\_ TIME \_\_\_\_\_

Dear Owner or Operator:

Your establishment has been inspected in accordance with the laws and rules governing:

food and lodging establishments in North Carolina General Statutes 130A-247 through 130A-250 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .2600 and related rules.

public swimming pools in North Carolina General Statutes 130A-280 through 282 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .2500 and related rules.

tattooing in North Carolina General Statutes 130A-283 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .3200 and related rules.

As a result of an inspection, the Department has determined that the establishment is in violation of Title 15A, Subchapter 18A, of the North Carolina Administrative Code, due to the attached noncompliant items.

### VIOLATIONS NOTED – Please List

**15A NCAC 18A Water, Plumbing, and Waste - 5-402.13 Conveying Sewage**

The Department has determined that the conditions found constitute an:

**IMMINENT HAZARD** as defined in G.S. 130A-2(3) and that the imminent hazard requires emergency action in order to protect the public health.

Failure of a public swimming pool to maintain minimum water quality or safety standards or design and construction standards pertaining to the abatement of suction hazards which result in an unsafe condition.

This letter is to notify you that based upon the above findings, your permit or transitional permit is hereby

**IMMEDIATELY SUSPENDED** in accordance with G.S. 130A-23(d). The permit suspension will not be lifted until the health department determines that all of the identified violations have been corrected. **YOU MUST CEASE OPERATIONS IMMEDIATELY AND CANNOT OPERATE YOUR ESTABLISHMENT WHILE YOUR PERMIT IS SUSPENDED.**

**IMMEDIATELY REVOKED** in accordance with G.S. 130A-23(d) or G.S. 130A-248(b). Once your permit has been revoked, you must apply for a new permit and must meet all of the current requirements necessary to obtain a new permit. **YOU MUST CEASE OPERATIONS IMMEDIATELY AND CANNOT OPERATE YOUR ESTABLISHMENT UNLESS A NEW PERMIT IS OBTAINED.**

Operation of your establishment without a permit or while the permit is suspended or revoked may lead to civil action to require you to cease operation, or criminal charges in accordance with G.S. 130A-25, or both.

You have a right to a formal appeal of this decision. To pursue a formal appeal, you must file a petition for a contested case hearing with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. To get a copy of a petition form, you may write the Office of Administrative Hearings or call the office at (919)431-3000. The petition for a contested case hearing must be filed in accordance with the provisions of North Carolina General Statutes 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B.

**PLEASE NOTE:** If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER.** Meeting the 30-day deadline is critical to your right to a formal appeal. Do not wait for the outcome of any informal review or appeal if you wish to file a formal appeal. **FILING A FORMAL APPEAL DOES NOT AUTOMATICALLY STAY AN IMMEDIATE PERMIT SUSPENSION OR REVOCATION. UNLESS A STAY IS ISSUED, THE PERMIT**

**REMAINS SUSPENDED UNTIL THE HEALTH DEPARTMENT DETERMINES THAT THE VIOLATIONS HAVE BEEN CORRECTED OR UNTIL THERE IS A FINAL DECISION IN THE CONTESTED CASE.**

**IS REVOKED AND THE ESTABLISHMENT CANNOT BE OPERATED UNTIL A NEW PERMIT IS OBTAINED OR UNTIL THERE IS A FINAL DECISION IN THE CONTESTED CASE.**

If you file a petition for a contested case hearing with the Office of Administrative Hearings, you are required by Law (N.C. General Statute 150B-23) to serve a copy of your petition on the state agency that is a party to the action. The state agency party in this case is the North Carolina Department of Health and Human Services. Service must be made in accordance with Rule 4 of the North Carolina Rules of Civil Procedure and 26 NCAC 3.0102(a)(3). You must send the copy to: Office of General Counsel, N.C. Department of Health and Human Services, 2001 Mail Service Center, Raleigh, NC 27699-2001. Do NOT send the copy of your petition to your local health department. Sending a copy of your petition to the local health department will NOT satisfy the legal requirements in N.C. Gen. Stat. 150B-23 that you serve a copy on the state agency that is a party to this action.

You may also request an informal review of this decision in accordance with 15A NCAC 18A .2643. You may call or write the local health department if you need any additional information or assistance.

**Be sure to have this section completed and they receive a copy for appeal rights.**

Signature of Environmental Health Specialist

Signature of Recipient

**Purpose:** General Statute 130A-23 gives the Secretary the power to suspend or revoke a permit issued pursuant to Chapter 130A, under certain conditions. This form is developed to be used for suspensions or revocations. **Preparation:** Local environmental health specialists shall complete form EHS 4009B whenever an "Immediate Suspension or Revocation" is issued. 1. Original to be left with responsible person 2. Copy for the local health department. 3. Copy for Environmental Health Section, Division of Public Health. **Disposition:** Please refer to Records Retention and Disposition Schedule for County/District Health Departments which is published by the North Carolina Division of Historical Resources. Additional forms may be ordered from: Div. of Environmental Health, 1630 Mail Service Center, Raleigh, NC 27699-1632 (Courier 52-01-00).