

Conducting Risk-based Inspections

A. PURPOSES AND SCOPE:

- (1) The ultimate responsibility for food safety at the food service establishment lies with the food service permit holder, the Certified Food Safety Manager (CFSM) and or the Person in Charge (PIC) and their ability to develop and maintain effective food safety management systems. The goal of Section D is to provide the Environmental Health Specialist, also known here after as EHS, with a practical, HACCP-based approach to evaluate the food service establishment through his assessment of active managerial control of foodborne illness risk factors within the establishment. Since food safety management systems are designed by food service operators to best meet their own needs, the EHS will need to use a risk-based methodology during his or her inspections to uncover the systems being used and to evaluate their effectiveness.
- (2) Regardless of the resource limitations that the EHS may have, he or she can still use the principles of HACCP to guide their inspections. Many of them already have the technical food safety knowledge needed to effectively use a HACCP approach.
- (3) The Centers for Disease Control and Prevention (CDC) Surveillance Report for 1993-1997, “Surveillance for Foodborne Disease Outbreaks – United States” (<http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4901a1.htm>) identifies the most frequently reported contributing factors to foodborne illness. Five of these broad categories of contributing factors directly relate to food safety concerns within retail and food service establishments and are collectively termed by the FDA as “foodborne illness risk factors.” These five broad categories are:
 - (a) Food from Unsafe Sources
 - (b) Inadequate Cooking
 - (c) Improper Holding Temperature
 - (d) Contaminated Equipment
 - (e) Poor Personal Hygiene

B. RISK-BASED ROUTINE INSPECTIONS:

- (1) Inspections have been a part of food safety regulatory activities since the earliest days of public health. The term "routine inspection" has been used to describe periodic inspections conducted as part of an on-going regulatory scheme.
- (2) Environmental Health Program managers should strive to have adequate staffing and resources to allow all EHS ample time to thoroughly evaluate establishments and ask as many questions as needed to fully understand establishments' operations. For most jurisdictions, however, EHS continue to have limited time in which to



complete inspections. This does not negate the need to thoroughly identify and assess the control of foodborne illness risk factors during each inspection.

- (3) It is a false assumption that EHS cannot conduct risk-based inspections in a limited timeframe. Even with limited time, EHS can focus their inspections on assessing the degree of active managerial control an operator has over the foodborne illness risk factors. By focusing inspections on the control of foodborne illness risk factors, EHS can be assured that they are making a great impact on reducing foodborne illness.
- (4) Active managerial control means the purposeful incorporation of specific actions or procedures by industry management into the operation of their businesses to attain control over foodborne illness risk factors. It embodies a preventive rather than reactive approach to food safety through a continuous system of monitoring and verification.
- (5) Developing and implementing food safety management systems to prevent, eliminate, or reduce the occurrence of foodborne illness risk factors is recommended to achieve active managerial control. Routine inspections and follow-up activities must be proactive by using an inspection process designed to evaluate the implementation of the Chapter's interventions and the degree of active managerial control that foodservice operators have over foodborne illness risk factors. The five interventions within the Chapter below were new interventions introduced with the 1993 FDA Model Food Code and they are just as important today as they were in 1993. They encompass a wide-range of control measures specifically designed to protect consumer health:
 - (a) Demonstration of Knowledge
 - (b) Implementation of Employee Health Policies
 - (c) Hands as a Vehicle of Contamination
 - (d) Time/Temperature Relationships
 - (e) Consumer Advisory
- (6) When the Georgia Food Service Rules and Regulations Chapter 511-6-1 hereafter called, the Chapter, interventions are not being implemented or if behaviors, activities, or procedures likely to cause foodborne illness are observed, EHS should verify that the operator takes immediate corrective action so that consumers do not become sick or injured. Observations made on the day of the inspection, as well as information gained about the behaviors, activities, and procedures that occur at other times, allow EHS to assess the strengths and weaknesses of the food safety management system that is in place.
- (7) An operator should be made aware of the inspectional findings both during, and at the conclusion of, the inspection and strategies for achieving compliance in the future should be discussed. Corrective actions taken during the inspection and



repeat violations should be noted on the inspection report. Repeat violations should trigger further compliance and enforcement actions.

- (8) The inspection process is also an opportunity to educate the operator on the public health reasons supporting the Chapter requirements. If operators are afforded the chance to ask questions about general food safety matters, they may clearly understand the public health significance of non-compliance.
- (9) Lastly, if the operator demonstrates a history of violations related to foodborne illness risk factors, the inspection process can be used to assist the operator with implementing long-term control systems to prevent those risk factors from occurring in the future.

C. WHAT IS NEEDED TO PROPERLY CONDUCT A RISK-BASED INSPECTION?

(1) Schedule Inspections Based on Risk:

- (a) Studies have shown that the types of food served, the food preparation processes used, the volume of food, and the populations served all have a bearing on the occurrence of foodborne illness risk factors in foodservice establishments. Rule 511-6-1-.10 subsection (2) (a) of the Chapter requires that food service establishments be grouped into three categories based on potential and inherent food safety risks. In addition, Rule 511-6-1-.10 subsection (2) (b) requires that Health Authorities assign inspection frequency based on the risk categories to focus program resources on food operations with the greatest food safety risk. With limited resources, creating a variable inspection frequency for each category will allow inspection staff to effectively spend more time in high-risk establishments that pose the greatest potential risk of causing foodborne illness.
- (b) Table 1 of this Section provides an example of risk categories and assignment of inspection frequency based on risk. In this example, the type of food served, food preparation processes conducted, and history of compliance related to foodborne illness risk factors are used as the basis of categorizing risk. Each local Health Authority will need to group all food service establishments within their jurisdiction according to risk categories according to the Chapter Rule 511-6-1-.10 subsection (2)(a). It is recommended that each local Health Authority reassess each establishment's assigned risk categorization at a rate of not less than once per year.

Table 1. Risk Categorization of Food Establishments

RISK CATEGORY	DESCRIPTION	FREQUENCY #/YR
1 (NO COOK STEP)	Examples include mobile food service units serving hot dogs, most concessionaires and coffee shops. Establishments that serve or sell only pre-packaged, non-potentially hazardous foods (non time/temperature control for safety (TCS) foods). Establishments that prepare only non-potentially hazardous foods (non-TCS foods). Establishments that heat only commercially processed potentially hazardous foods (TCS foods) for hot holding. No cooling of potentially hazardous foods (TCS foods). Establishments that do not intake raw ingredients of animal origin and cook them for food safety. Establishments that do not prepare or serve any food items that require a consumer disclosure and reminder. Establishments that do not have processing steps that require a variance and/or HACCP plan.	1
2 (COOK STEP)	Examples may include schools, and fast food service operations. Limited menu. Most products are prepared/cooked and served immediately. May have an extensive menu and with handling of raw ingredients. May conduct complex preparation of potentially hazardous foods (TCS foods) requiring cooking, cooling, and reheating for hot holding such as a full service restaurant. Variety of processes require hot and cold holding of potentially hazardous food (TCS food).	2
3 (REQUIRED HACCP PLAN)	Establishments that conduct specialized processes, e.g., smoking and curing; reduced oxygen packaging for extended shelf life, requiring a variance and an approved HACCP plan. An example may be a full service restaurant that serves sushi rice. Extensive menu and handling of raw ingredients. Complex preparation including cooking, cooling, and reheating for hot holding involves many potentially hazardous foods (TCS foods). Variety of processes require hot and cold holding of potentially hazardous food (TCS food).	3
Note: Frequency of Inspection will also be based on Establishment grading as per the Chapter in Rule 511-6-1-.10 (2)(b)		

(c) Regardless of the risk category initially assigned to food establishments, the following factors may be used by local Health Authorities to justify an increase in inspection frequency:

1. History of non-compliance with provisions related to foodborne illness risk factors or critical items
2. Specialized processes conducted
3. Food preparation a day in advance of service
4. Large number of people served
5. History of foodborne illness and/or complaints
6. Highly susceptible population served.



(2) Have the Proper Equipment:

(a) In order to conduct risk-based inspections, each EHS must be provided with the proper equipment to assess the control of foodborne illness risk factors within food establishments. At a minimum, each EHS should be provided with the following essential equipment:

1. Thermocouple with the appropriate probes for the food being tested
2. Alcohol swabs or other suitable equipment for sanitizing probe thermometers
3. Chemical test kits for different chemical sanitizer types
4. Heat-sensitive tape or maximum registering thermometer
5. Flashlight
6. Head cover, such as baseball cap, hair net, or equivalent.

(b) Other equipment may be provided to EHS on an “as needed” basis. While it is desirable for each EHS to have the following equipment, depending on the resources available to the Health Authority, this equipment may be shared in a central office as appropriate:

1. Pressure gauge for determining in-line pressure of hot water at injection point of warewashing machine (5-30 psi)
2. Light meter
3. Measuring device for measuring distances
4. Time/temperature data logger
5. pH meter
6. Water activity meter
7. Camera
8. Computers with or without an electronic inspection system
9. Black light
10. Foodborne illness investigation kits
11. Sample collection kits
12. Cell phones.

(3) Provide Adequate Training: EHS staff shall have the knowledge, skills, and ability to adequately perform their required duties. EHS need the proper training before they can be expected to conduct risk-based inspections. Training includes a combination of classroom training, in-field training, standardization, and continuing education

(a) Classroom Training:

1. The first phase of staff training will be to provide an orientation to the program with a review of program history, structure, and relationships to

other food-related programs. Specific emphasis must be on the program's goals and objectives. The basic training curriculum will include the following components:

- a. Basic knowledge of Chapter 511-6-1
 - b. Public health principles
 - c. Communication skills
 - d. Epidemiology
 - e. Microbiology
 - f. HACCP.
2. FDA's ORA-U (<http://www.fda.gov/ora/training/>) provides basic curriculum components free of charge to Health Authorities via the Internet. It allows EHS to access training as needed. Online learning allows the local Health Authority to cost-effectively disseminate the most current technical and regulatory information on an as-needed basis.

(b) Field Training and Experience:

1. The second phase of training will move the new EHS into the field with a training officer, the District Standard. On-site training should focus on specific inspection tasks such as interviewing, making observations, measuring conditions such as temperatures and sanitizer strength, assessing the control operators have over the foodborne illness risk factors, ensuring implementation of Chapter interventions, and completing the inspection form. If an electronic database is used by the local Health Authority, training in its use should be included in this phase.
2. The evaluation of food safety management systems based on HACCP principles is to be part of the field training experience. The trainee and the trainer will review establishment menus, operations, recipes, and standard operating procedures. EHS must be able to demonstrate proficiency in gathering information about the food preparation processes, including accurate charting of the food flows and determination of the Critical Control Points (CCPs) and critical limits in an operation. This part of the training will also include a familiarization with the compliance and enforcement protocol in the Chapter including recommendation of voluntary strategies, such as risk-control plans, to prevent risk factor occurrence.

- (c) Standardization: The third part of staff training will include standardization. This process improves uniformity in the application and interpretation of applicable regulations, inspection methodology, and report writing. Standardization of County EHS will be as per Chapter in Rule 511-6-1-.09 and as prescribed within the Georgia Standardization Procedure.



- (d)
- (e) Continuing Education: The training process for EHS should be continuous. The final phase of training will include a mechanism to ensure that learning is ongoing and staff is kept abreast of food safety issues and the latest science.

(4) Ensure Adequate Program Resources:

- (a) The local Health Authority is encouraged to maintain adequate funding, staff, and equipment necessary to support a risk-based food safety program designed to reduce the occurrence of foodborne illness risk factors. Local Health Authorities should do everything they can to secure funding and resources to support their food safety program.
- (b) The food safety program budget should provide the necessary resources to develop and maintain a food safety program that has a staffing level of one full-time equivalent (FTE) devoted to the food service program for every 280 - 320 inspections performed. Inspections, for purposes of this calculation, include routine inspections, re-inspections, complaint investigations, outbreak investigations, compliance follow-up inspections, risk assessment reviews, process reviews, variance process reviews, and other direct establishment contact time such as on-site training.

(5) Focus the Inspection:

- (a) Conducting a risk-based inspection requires EHS to focus their efforts on evaluating the degree of active managerial control that operators have over foodborne illness risk factors. In addition, it is essential that the implementation of the Chapter interventions also be verified during each inspection. EHS need to spend the majority of their time observing the behaviors, practices, and procedures that are likely to lead to out-of-control foodborne illness risk factors and asking management and food employee's questions to supplement actual observations.
- (b) Food service establishment operators must implement "control measures" to ensure food safety. Control measures are actions or activities that are used to prevent, eliminate, or reduce food safety hazards. EHS need to determine the control measures that should be implemented to prevent the occurrence of foodborne illness risk factors in each food preparation process. In order to determine the foodborne illness risk factors common to each operation, it is important for EHS to understand that the food preparation processes and all the associated control measures initiated by a food service operator represent a food safety management system. It will be necessary for EHS to ask questions in order to gain information about the system already in place. Once the degree of active managerial control is determined, EHS will be able to assist operators with strengthening their existing food safety management systems.

(6) Lead by Example:

(a) Nonverbal communication is just as important as verbal communication in relaying important food safety principles to food service establishment operators. By setting the example during inspections, EHS not only demonstrate competency, but they also relay important food safety information to the person in charge and food employees. The following are ways that EHS set the example during inspections:

1. Washing their hands when entering the food preparation area at the beginning of the inspection and after engaging in any activities that might contaminate their hands
2. Not working when they are suffering from symptoms such as diarrhea, fever, vomiting, or jaundice or if they are diagnosed with a disease transmittable by food
3. Being careful not to touch ready-to-eat (RTE) food with their bare hands
4. Washing and sanitizing their thermocouple probe at the start of the inspection and between foods
5. Using a proper hair restraint and practicing good personal hygiene
6. Being careful not to contaminate clean and sanitized food contact-surfaces with unclean hands or their inspection equipment.

(7) Conduct Inspections at Variable Times:

(a) EHS should enter the food service establishment during hours of operation or at other reasonable times. They should show identification and provide the permit holder or person in charge with a verbal or written notice of the purpose of the inspection. Requirements outlined in Rule 511-6-1-.10 subsection (2) (d) of the

Chapter should be followed if access to conduct an inspection is denied. Refusal should be documented on the inspection report and an inspection warrant should be obtained as per the Chapter in Rule 511-6-1-.10 subsection (2) (d) 1. Legal council representing the local Health Authority should always be consulted during this process.

(b) In planning for inspections, EHS should consider the importance of timing. Several operational steps at the food service establishment such as receiving, preparation, and cooling can be evaluated only during limited time periods. In order to properly evaluate critical processes that occur outside of the normal 8 a.m. to 5 p.m. working hours, EHS should be allowed the flexibility to conduct inspections early in the morning and late in the evening.

(8) Establish Inspection Priorities and Use Inspection Time Wisely:

(a) With the limited time allotted for inspections, EHS must develop clear priorities to make the most efficient use of their time in each food establishment. Although



basic sanitation issues generally do not change during the course of an inspection, critical behaviors, practices, and procedures leading to foodborne illness risk factors may be only observable during limited time periods of the preparation or cooling process. For this reason, assessment of the active managerial control of foodborne illness risk factors should generally be performed before reviewing basic sanitation issues.

(b) To effectively set priorities, the following four activities should be completed early in the inspection:

1. Establish an Open Dialogue with the Person in Charge:

- a. The tone of the inspection is often set during the first few minutes of the inspection. A professional but personable approach is the balance that should be maintained. Genuine interest in the food establishment and the staff translates into good relations that may be helpful in conveying the goal of promoting public health. Having an open dialogue with the person in charge during all phases of the inspection gives EHS an opportunity to learn important information about the existing food safety management system.
- b. It is important to know both the strengths and weaknesses of the existing food safety management system early in the inspection in order to focus the inspection on weak areas. Questions about practices and procedures related to foodborne illness risk factors and the Chapter interventions such as the establishment's employee health policy and consumer advisory notice should be asked during all phases of the inspection. It is
- c. important to ask enough questions to fully understand the system being utilized in the food establishment. This is especially true when evaluating whether the employees are adhering to the established no bare hand contact and hand washing policies. Asking the person in charge questions about important activities such as receiving, cooling, and preparation is also important in relaying the importance of out-of-control foodborne illness risk factors.
- d. The person in charge should be encouraged to accompany EHS during the inspection. This may ultimately save time since violations can be pointed out and corrected as they are observed. In addition, the importance of violations related to foodborne illness risk factors and Chapter interventions is more apparent if they are pointed out during the inspection rather than waiting until the end. Violations shall be marked on the inspection form even if immediate corrective actions are taken. Corrective actions taken will also be recorded on the inspection form. EHS can also use this time to share knowledge about critical processes.

By communicating the public health rationale behind the regulations, EHS will leave the person in charge with a clear understanding for why active managerial control of foodborne illness risk factors must be a top priority in the day-to-day operation of the business.

- e. Early in the inspection, EHS should inquire about activities that are presently occurring. Processes that occur over time like cooling and reheating also need to be assessed over time; thus, EHS should ask in the beginning of the inspection if any foods are currently being cooled or reheated.

It is important for EHS to allow the operator a chance to discuss issues related to food safety. One-way communication in which EHS do all the talking is not conducive to a risk-based philosophy. An effective risk-based inspection is dependent on EHS' ability to maintain two-way communication in order to properly assess behaviors, processes, and procedures that occur in the food establishment.

2. Review Previous Inspection Reports:

- a. In order to detect trends of out-of-control foodborne illness risk factors, it is important for EHS to review past inspection reports before conducting an inspection. This can be done in the office or on-site in the food establishment. This activity is especially important in jurisdictions where EHS rotate from one inspection to the next. If the same foodborne illness risk factor is out-of-control during more than one inspection, it is strongly recommended that the operator develop an

intervention strategy to prevent its recurrence. Intervention strategies are discussed later.

- b. Knowledge of what has been corrected from the last inspection also gives EHS an opportunity to provide positive feedback to the operator and allows EHS to track corrected violations.

3. Conduct a Menu/Food List Review:

- a. Menus, including all written and verbal lists of foods prepared and offered in a food service establishment, can be reviewed in a fairly simple manner. The review can either be done simultaneously with a quick walk-through of the operation or at the beginning of the inspection as a discussion with management. The menu/food list also does not need to be reviewed during every inspection. If a review was done during a recent inspection, EHS should inquire about new items,

seasonal items, substitutions, or changes in preparation since the last menu review was conducted.

- b. A review of the menu/food list allows EHS to begin to group food items into one of three broad process categories. Mentally grouping products by process assists EHS in focusing the inspection on the control measures critical to each process. Conducting a review of the menu/food list also allows EHS to establish inspection priorities by identifying:
 - (I). High-risk foods or high-risk food preparation processes
 - (II). Operational steps requiring further inquiry such as receiving, preparation, cooking, and cooling.
 - c. By identifying high-risk foods or high-risk food preparation processes, EHS can focus the inspection on those foods or processes that are more likely to cause foodborne illness if uncontrolled. The menu/food list review might be the only time EHS are made aware of specialized processes such as formulating a food so that it is not time/temperature control for safety (TCS) food or high-risk seasonal menu items such as “raw oysters on the half shell.” Foods such as shellstock and certain fish for raw consumption require documentation that should be reviewed during the inspection. If Caesar salad or hollandaise sauce is served, further inquiry is needed regarding the preparation of these items since they are sometimes prepared with raw or undercooked eggs.
 - d. Several operational steps like receiving, preparation, cooking, and cooling may not be inspected as vigorously in food service inspections due, in part, to the hours of the day in which these steps occur. If a food establishment is inspected in the afternoon hours, for example, receiving and food preparation might have already occurred. In order to evaluate the establishment’s active managerial control of foodborne illness risk factors, it is imperative that EHS asks enough questions to obtain information about the operational steps that they cannot directly observe during the current inspection.
4. Conduct a Quick Walk-through:
- a. As EHS discuss the menu or food list and establish open communication with the person in charge, it is suggested that they conduct a quick walk-through of the food establishment to observe what is going on at that time. Conducting a quick walkthrough is especially important to observe several activities that might otherwise go unnoticed or unobserved until later in the inspection, including:



1. Receiving:
 2. Food preparation and handling
 3. Cooking
 4. Cooling
 5. Reheating
- b. Speaking directly to the food service employees doing specific tasks is also an excellent way to assess the effectiveness of the person in charge performing his or her duty of food safety training and standard operating procedures for critical processes such as cooling. Noting that receiving or food preparation is occurring at the beginning of the inspection allows EHS an opportunity to take advantage of viewing “real-life” production processes and will help them to obtain a clear picture of the establishment's true practices. Receiving and food preparation only occur during limited times, so EHS may want to stop and observe these operational steps while they are happening.
- c. Early in the inspection, temperatures time/temperature control for safety foods (TCS foods) should be taken. For example, if inspecting in the morning, EHS should check the temperatures of last night’s stored leftovers. If inspecting in the afternoon, they should check the temperatures of foods prepared that morning that are now cooling. Also, EHS should ask whether any foods are currently being cooked or reheated.

(9) Determine Process Flows:

- (a) Many food service establishments have implemented effective food safety management systems by establishing controls for the food preparation methods and processes common to their operation. Control of food preparation processes rather than individual food items is often called the “process approach” to HACCP. The process approach using the principles of HACCP can best be described as dividing the many food items in an operation into food preparation processes then analyzing the foodborne illness risk factors associated with each process. By placing managerial controls on specific operational steps in the flow of food, foodborne illness can be prevented.
- (b) Most food items produced in a food service establishment can be categorized into one of three preparation processes based on the number of times the food passes through the temperature danger zone between 41° F and 135° F. In conducting risk-based inspections, it is necessary for an EHS to be knowledgeable regarding how food is prepared in the operation. Knowing how products are prepared in an establishment allows EHS to focus their inspections on the critical procedures and steps in the preparation of those products.
- (c)



- (10) Determine Foodborne Illness Risk Factors In Process Flows: EHS should generally focus their inspections on verifying that operators have implemented control measures to control for foodborne illness risk factors common to the processes conducted in each operation. There may be other foodborne illness risk factors unique to specific operations; thus, EHS should independently evaluate each operation and food preparation process conducted.
- (11) Assess Active Managerial Control of Foodborne Illness Risk Factors and Implementation of the Chapter’s Interventions:
- (a) Although some food establishments have formal HACCP plans, many do not. Even without a HACCP system, every food establishment needs to have active managerial control of foodborne illness risk factors. This may be achieved through several means, such as training programs, manager oversight, or standard operating procedures. For example, some food establishments incorporate control measures into individual recipes, production schedules, or employee job descriptions to achieve active managerial control.
 - (b) While a person in charge may require the maintenance of in-house written records by employees to ensure that monitoring is being performed using the correct method and at the proper frequency, foodborne illness risk factors may be managed without the use of formal record keeping. Monitoring, whether through direct observations or by taking appropriate measurements, is by far the most important step in ensuring food safety. If an operator is effectively monitoring all critical activities in the food establishment and taking corrective actions when needed, safe food will result. With a few exceptions, maintaining formal records at retail is not required; therefore, records may not be in place for use during the inspection. As a result, it will be necessary to use direct observations and interviewing to determine whether a food establishment is adequately monitoring foodborne illness risk factors in their existing food safety management system.
 - (c) This section provides a comprehensive discussion of how to assess the active managerial control of each of the foodborne illness risk factors and the implementation of each of the Chapter interventions. Assessment of active managerial control involves more than determining compliance with the Chapter provisions. In assessing whether the operator has active managerial control, EHS should observe whether the operator has established the appropriate control measures and critical limits and whether appropriate monitoring and corrective action procedures are in place and followed. In addition, EHS should assess whether managers and employees are knowledgeable of food safety principles and critical practices and procedures necessary to prevent foodborne illness. If during the inspection, the EHS observes that control measures are not being implemented appropriately to control risk factor occurrence, immediate corrective action must be taken.



(12) Demonstration of Knowledge:

- (a) It is the responsibility of the person in charge to ensure compliance with Chapter 511-6-1. Knowledge and application of the Chapter's provisions are vital to preventing foodborne illness and injury. Data collected by FDA suggest that having a certified food manager on-site has a positive effect on the occurrence of certain foodborne illness risk factors in the industry.
- (b) In order to assess whether the person in charge demonstrates knowledge, EHS should verify that the person in charge has one or more of the following:
 - 1. A valid food protection manager certificate
 - 2. No priority item violations during the current inspection
 - 3. Correct responses to food safety related questions as presented in Rule 511-6-1-.03 subsection (1) (c) of the Chapter

(13) Assessing Safe Sources and Receiving Temperatures:

- (a) The time and day of the inspection is important when assessing whether foods are received from safe sources and in sound condition. Foods may be received in the food establishment on set days. EHS should ask questions to ascertain the day or days that deliveries are received and also the receiving procedures in place by the food establishment. Inspections can be scheduled at times when it is known that products will be received by the food establishment. If food is being delivered during the inspection, EHS should:
 - 1. Verify internal product temperatures
 - 2. Examine package integrity upon delivery
 - 3. Look for signs of temperature abuse (e.g., large ice crystals in the packages of frozen products)
 - 4. Examine delivery truck and products for potential for cross-contamination
 - 5. Observe the food establishment's behaviors and practices as they relate to the establishment's control of contamination and holding and cooling temperatures of received products
 - 6. Review receiving logs and other documents, product labels, and food products to ensure that foods are received from regulated food processing plants (no foods prepared at home) and at the proper temperature.
- (b) When evaluating approved sources for shellfish, such as clams, oysters, and mussels, EHS should ask whether shellfish are served at any time during the year. If so, they should review the tags or labels to verify that the supplier of the shellfish is certified and on the most current [Interstate Certified Shellfish Shippers List](#). EHS should note whether all required information is provided on the tags or label (harvester's certification number, harvest waters and date, type and quantity of shellfish and similar information for

each dealer that handles the shellfish after the harvester). Shellstock tags should also be retained for 90 days in chronological order.

- (c) With regard to fish, EHS should verify that fish are commercially caught and harvested and received from reputable vendors. If fish are being delivered during the inspection or if they were received just before the EHS's arrival, temperatures should be taken, especially if there are finfish such as tuna, mahi-mahi, bluefish, mackerel, and snapper. These fish are subject to scombrototoxin formation if time/temperature abused. EHS should verify freshness by conducting an organoleptic inspection of the gills, eyes, and bodies of the fish.
- (d) EHS should verify that fish, except for certain species of tuna, intended for raw or undercooked consumption have been frozen for the required time and temperature parameters to destroy parasites by either reviewing freezing records or verifying that a letter of guarantee from the purveyor is kept on file. If freezing is conducted on-site, they should verify that the freezing records are maintained for at least 90 days beyond the date of sale or service.
- (e) With regard to the service of game or wild mushrooms, EHS should ask if these products are served at any time during the year. If so, EHS should verify that they are from an approved source by reviewing invoices.
- (f) With regard to juice and milk products, EHS should verify that fluid milk and milk products are pasteurized and received at the proper temperature. For packaged juice, they should verify that the juice was pasteurized or otherwise treated to achieve a 5-log reduction of the most resistant microorganism.
- (g) During the inspection, EHS should inquire as to the source of foods that have been removed from their original containers. If at any time during the inspection there is any doubt as to the source of certain products, they should ask for invoices or receipts to demonstrate their source. Certain products, such as flat breads, waffles, pies, and cakes may require special cooking equipment to prepare. If suitable equipment is not on-site to prepare such products and the products are not stored in original containers, then EHS should inquire as to the source of these products.
- (h) Food from unapproved, unsafe, or otherwise unverifiable sources should be discarded or put on hold until appropriate documentation is provided. In addition, EHS should ensure that management and employees are aware of the risk of serving or selling food from unapproved sources. Fish that are intended to be consumed raw or undercooked and for which no freezing certification or equipment is found on-site, can be used in menu items that will be fully cooked. If cooking is not an option due to the menu items served, the fish should be discarded.



(14) Assessing Contaminated Equipment and Potential for Cross-Contamination:

- (a) This risk factor involves the proper storage and use of food products and equipment to prevent cross-contamination. The cleaning, sanitization, and storage of food-contact surfaces of equipment and utensils in a manner to prevent transmission of foodborne pathogens or contamination is also included in this risk factor.
- (b) As EHS walk through the food establishment, they should examine food storage areas for proper storage, separation, segregation, and protection from contamination. They should look to see that raw animal foods and ready-to-eat foods are separated during receiving, storage, and preparation. For example, cooked shrimp should not be returned to the same container that previously held uncooked product. Cutting boards should be washed, rinsed, and sanitized between trimming uncooked chicken and cooked steak.
- (c) In addition, raw animal foods should be separated by cooking temperatures such that foods requiring a higher cooking temperature, like chicken, should be stored below or away from foods requiring a lower temperature, like pork and beef. If TCS foods are not being cooled, they should be covered or packaged while in cold storage.
- (d) Following the flow of food as it is prepared in the food establishment may alert EHS to opportunities for cross-contamination. When contamination has occurred between raw and ready-to-eat food, they should assess whether the food can be reconditioned. In some cases, depending on the affected food, it may be possible to reheat the food to eliminate any hazards. If the food cannot be reconditioned, then the food should be discarded.
- (e) EHS should verify that exposed food such as chips, bread, and dipping sauces are not re-served to the consumer. Consumer self-service operations are addressed in the Chapter with regard to the types of food offered for consumer self-service, the protection of food on display, and the required monitoring by employees of such operations.
- (f) A visual check of the food-contact surfaces of equipment and utensils should be made to verify that the utensils are maintained clean and sanitized using the approved manner and frequency. Utensils that are observed to have debris, grease, or other visible contamination should be rewashed and re-sanitized.
- (g) Observations should be made to determine whether practices are in place to eliminate the potential for contamination of utensils, equipment, and single-service items by environmental contaminants, employees, and consumers. When clean equipment and utensils are stored where they are subject to environmental contamination such as near hand washing sinks or prep sinks,



EHS should have the operator rearrange the equipment in a manner to prevent cross-contamination. Depending on the circumstances, the operator may need to rewash and re-sanitize the equipment.

- (h) EHS should observe hand washing operations. If hand washing sinks and fixtures are located, where splash may contaminate food contact surfaces or food, then splash guards should be installed or food-contact surfaces should be relocated to prevent cross-contamination. They should pay particular attention to prep sinks, especially those that are currently in use at the time of the inspection. Built-up grime is a visible sign that the sink is not being washed, rinsed, and sanitized appropriately before use. If there are designated vegetable or meat sinks, EHS should verify that the placement of sinks and food preparation areas do not facilitate opportunities for cross-contamination from one to the other.
- (i) With regard to the cleaning and sanitization of food-contact surfaces, EHS should verify the compliance of any warewashing operations by ensuring that cleaning and sanitizing procedures for all food-contact surfaces conform to the requirements in the Chapter. Questions should be asked to assess how utensils and cookware are washed, rinsed, and sanitized in the food service establishment. When assessing the warewashing procedure and equipment, they should pay particular attention to cooking and baking equipment that is too large to fit in the warewashing-machine or sinks. It is good ideas to have the person responsible for dishwashing demonstrate the procedure that is followed in the food establishment by setting up the sinks and watching the dishwashing procedure.

(15) Assessing Cooking Temperatures:

- (a) If an opportunity exists, food cooking temperatures and times must be verified by EHS during each inspection. Every effort should be made to assess the cooking temperatures of a variety of products served in the food establishment.
- (b) To assess cooking, inspections must occur at times when food is being cooked. It is also important to conduct inspections during busy times, such as lunch and dinner, as there may be a tendency for the operator to rush the cooking of foods during these times.
- (c) Critical limits for cooking TCS foods in the Chapter include specifications that all parts of the food be heated to a certain temperature. For large roasts, temperature measurement should take into account post-cooking heat rise, which allows the temperature to reach equilibrium throughout the food. The critical limit of time at the terminal temperature must also be measured during inspections. For example, a roast beef cooked at 130°F is required to be held at this temperature for 112 minutes to ensure destruction of pathogens. Cooking times and temperatures should be noted on the inspection report.

- (d) The correct temperature-measuring device and technique are essential in accurately determining the temperatures of TCS foods. The geometric center or thickest parts of a product are the points of measurement of product temperature particularly when measuring critical limits for cooking.
 - (e) EHS must take internal temperatures of products using a thermocouple or thermistor with a probe suitable for the product thickness. A thin diameter probe must be used for temperature measurements of hamburger patties and fish filets. Alternately, although less desirable, an EHS may use a suitable, calibrated bimetal stem thermometer for checking cooking temperatures of thick foods. Infrared thermometers are inappropriate for measuring internal cooking temperatures.
 - (f) In order to better assess cooking during all phases of the inspection, EHS could enlist the help of cooperative food employees to notify them of foods that have finished cooking. This allows EHS to continue with the inspection in other areas of the operation yet continue to verify that proper cooking temperatures are being met.
 - (g) Food establishments should routinely monitor cooking temperatures. EHS should verify that monitoring is occurring by involving the person in charge in these activities during the regulatory inspection. The presence of required thermometers and their proper use should be assessed.
 - (h) Comparisons should be made between EHS's calibrated temperature measuring device and those used by the food establishment. Notation of deviations should be made on the inspection report. They should ask food establishment personnel to demonstrate proper calibration of their temperature measuring devices.
 - (i) If required cooking temperatures are not met, EHS should have the operator continue cooking the food until the proper temperature is reached. Additionally, they should explain the public health significance of inadequate cooking to management and food employees.
- (16) Assessing Holding Time and Temperatures and Date Marking:
- (a) Available hot and cold holding temperatures, as well as cooling time and temperatures, of TCS foods must be thoroughly checked with a thermocouple, thermistor, or other appropriate temperature measuring device during each inspection. This includes the temperature of TCS food during transport, e.g., hot holding carts being used to transport food to patient rooms in a hospital or satellite kitchens. As a rule, every effort should be made to assess every hot and

cold holding unit in the food service establishment during a risk-based inspection.

- (b) Use of an infrared thermometer for verifying holding temperatures is not consistent with the Chapter requirements since verifying only the surface temperature of the food may not alert EHS to problems that exist under the food's surface. Such problems could stem from improper cooling, in the case of cold-held foods, or improper reheating, in the case of hot-held foods. In addition, EHS should not stir a food before taking its temperature since it is important to know the temperature of the food before it is agitated.
- (c) The geometric center of a product is usually the point of measurement of product temperature particularly when measuring the critical limit for cold holding.
- (d) The hot holding critical limit may need additional measurements taken at points farthest from the heat source, e.g., near the product surface for food held on a steam table. Temperatures monitored between packages of food, such as cartons of milk or packages of meat, may indicate the need for further examination. However, the temperature of a TCS food itself, rather than the temperature between packages, is necessary for marking violations. In large holding units and on steam tables, it is necessary to take the temperatures of foods in various locations to ensure that the equipment is working properly. If deviations are noted in the product temperatures, it is important to take extra steps to find out whether the problem is the result of equipment failure or whether a breakdown in a process such as cooling or reheating is the reason for the problem.
- (e) Corrective actions for foods found in violation should be required based on the Rule 511-6-1-.10 subsection (3) of the Chapter and the guidance provided within the Interpretation Manual. If foods are to be discarded, forms such as, "Withhold from Sale Order" may need to be completed. In order to properly evaluate the degree of time and temperature abuse and the proper disposition of the affected food, several issues must be considered. Answers to these questions, in combination with observations made during the inspection, should provide EHS with enough information to make the appropriate recommendation for on-site correction:
 - 1. Are there any written procedures in place for using time alone as a public health control and, if so, are they being followed properly?
 - 2. What are the ingredients of the food and how was it made?
 - 3. Is it likely that the food contains *Clostridium perfringens*, *Clostridium botulinum*, or *Bacillus cereus* as hazards?
 - 4. Has there been an opportunity for post-cook contamination with raw animal foods or contaminated equipment?

5. If there has been an opportunity for post-cook contamination, can the hazards of concern be eliminated by reheating?
 6. Are the food employees practicing good personal hygiene including frequent and effective hand washing?
 7. Was the food reheated or cooked to the proper temperature before being allowed out of temperature control?
 8. What is the current temperature of the food when taken with a probe thermometer?
 9. How long has the food been out of temperature control (ask both the manager and food employees)? Are the answers of the food employees and the manager consistent with one another?
 10. Is it likely that food has cooled to its current temperature after being out of temperature control for the alleged time?
 11. Will the food be saved as leftovers?
 12. How long before the food will be served?
 13. Given what is known about the food, the food's temperature, the handling of the food, and the alleged time out of temperature, is it reasonably likely that the food already contains hazards that cannot be destroyed by reheating?
- (f) Even if food can be reconditioned by reheating, steps should be taken by the person in charge to ensure compliance in the future. Examples include repairing malfunctioning or inoperative equipment or implementing a risk control plan (RCP) to modify preparation procedures or to institute a procedure for monitoring holding temperatures of food.
- (g) If using time only or time-temperature combinations in lieu of temperature for controlling the growth and toxin-formation of pathogenic bacteria, strict controls must be in place and followed. EHS must verify that the written procedures are on-site and followed in accordance with the Chapter.
- (h) Date marking is the mechanism by which active managerial control of time-temperature combinations can prevent the growth of *Listeria monocytogenes* in TCS, ready-to-eat foods during cold storage. With exceptions, all ready-to-eat, TCS foods prepared on-site and held for more than 24 hours should be date marked to indicate the day or date by which the foods need to be served or discarded. EHS must ask questions to ascertain whether the system in place to control for *L. monocytogenes* meets the intent of Rule 511-6-1-.04 subsection (6) (g) in the Chapter. Food that should be date marked and is not must be discarded.

(17) Assessing Reheating for Hot Holding:

- (a) In order to assess a food establishment's control of reheating for hot holding, the time of day that the inspection occurs is a key factor. Every effort should be made to schedule an inspection during pre-opening preparation. If inspections are conducted during preopening preparation or other preparation periods, EHS

should ask questions regarding the history of hot-held foods. Foods in compliance for minimum hot holding temperatures may have in fact been improperly reheated before being placed into hot holding units or steam tables.

- (b) If items are found “reheating” on the steam table, further inquiry is needed to assess whether the equipment in question is capable of reheating the food to the proper temperature within the maximum time limit. Corrective action for foods found out of compliance for reheating for hot holding would depend on how long the food had been out of temperature and other factors. In most cases, however, the food may be rapidly reheated and hot held.

(18) Assessing Cooling:

- (a) Improper cooling remains a major contributor to bacterial foodborne illness. Cooling temperatures and times need to be closely evaluated during every inspection. In order to assess whether a food establishment has control over cooling, the time of day that the inspection occurs is critical. 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 an EHS to verify cooling of products that may have been prepared that morning. Because many food establishments prepare bulk products only on certain days of the week, it is essential that EHS become as familiar as possible with each operation and schedule their inspections accordingly.
- (b) Due to the time parameters involved in cooling, EHS should always inquire at the beginning of the inspection whether there are any products currently being cooled. This allows EHS an opportunity to take initial temperatures of the products and still have time to re-check temperatures later in the inspection in order to verify that critical limits are being met.
- (c) Problems with cooling can often be discovered through inquiry alone. Even when no cooling is taking place, EHS should ask the food employees and managers questions about the cooling procedures in place.
- (d) When examining cold holding units, bulk containers and buckets, tightly packed pans, shrouded rolling racks, or closed rolling cabinets should warrant further temperature and time investigation. Bulk containers and buckets should be opened since they are commonly reused for food storage and cooling.
- (e) The geometric center of a product is often chosen as the point of measurement of product temperature particularly when measuring the critical limits for cooling. For foods that are being cooled, temperature profiles throughout the product may show proper temperatures at outer edges and hot spots at the core of the product. EHS can verify cooling by first taking a temperature



- (f) measurement in the geometric center of the product, then at various points around the perimeter of the product. Warmer temperatures in the center of the product, in combination with cooler temperatures around the perimeter, indicate that a product is cooling. Additional questions should be asked to ascertain the cooling time parameters of the food in question. Information gained from food employees and management, in combination with temperature measurements taken, should form the basis for assessing compliance of cooling during an inspection.
- (g) The following guidance may be used for determining the appropriate corrective action for improper cooling:
 - 1. Cooked hot food may be reheated to 165 °F for 15 seconds and the cooling process started again using a different cooling method if the food is:
 - a. Above 70 °F and less than two hours into the cooling process.
 - b. Above 41 °F and less than six hours into the cooling process.
 - 2. Cooked hot food should be discarded immediately if the food is:
 - a. Above 70 °F and more than two hours into the cooling process; or
 - b. Above 41 °F and more than six hours into the cooling process.
 - 3. A different, more accelerated, cooling method may be used for prepared ready-to-eat foods if the food is above 41°F and less than four hours into the cooling process; however, such foods should be discarded if the food is above 41 °F and more than four hours into the cooling process.

(19) Assessing Personal Hygiene, Hands As a Vehicle of Contamination, and Proper Implementation of Employee Health Policies:

- (a) Special attention should be given to the potential for hands as a vehicle of contamination. An effective management system for prevention of hand contamination involves three elements:
 - 1. Employee health policy
 - 2. Proper hand washing
 - 3. No bare hand contact with ready-to-eat foods.
- (b) There are a wide range of communicable diseases and infections that can be transmitted by an infected food employee. Proper management of the risks associated with ill food employees begins with employing healthy people and implementing a policy that excludes or restricts ill employees as specified in

Rule 511-6-1-.03 subsection (4) of the Chapter. Employees must be aware of the symptoms, illnesses, or conditions that must be reported to the person in charge. In addition, the person in charge must be knowledgeable regarding the appropriate action to take should certain symptoms, illnesses, or conditions be reported.

- (c) With regard to the employee health policy, EHS should ask a series of open-ended questions to ascertain whether the employee health policy in place complies with the Chapter. The following are example questions that may be asked:
1. What kind of policy do you have in place for handling sick employees?
 2. Is there a written policy? (Note: a written policy is not required in the Chapter, but having a written policy may give an indication of the formality of the policy being discussed.)
 3. Describe how managers and food employees are made knowledgeable about their duties and responsibilities under the employee health policy.
 4. 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?
 5. What are food employees instructed to do when they are sick?
 6. What conditions or symptoms are reported?
 7. What are some possible indicators of someone who is working while ill?
 8. When are employees restricted from working with exposed food or food-contact surfaces? When are they excluded from working in the food establishment?
 9. For employees that are sick and cannot come to work, what policy is in place for allowing them to return and for notifying the local Health Authority?
- (d) Special attention should be given to the potential for hands as a vehicle of contamination. Ensuring that hands are washed using the proper procedure and at the appropriate times must be a top priority during every inspection. Data show that viruses can be tenacious even in the presence of good hand washing. EHS should observe employee use of utensils and gloves during the preparation and service of ready-to-eat foods and ingredients, such as salads and sandwiches.
- (e) If ready-to-eat food is touched with bare hands, EHS will need to address several questions in order to make the appropriate on-site correction recommendation. The answers to the following questions should provide enough information to determine the likelihood of occurrence of hazards transmitted by bare hands and should be the basis for making a recommendation for on-site correction:

1. Does the facility have an employee health policy to identify, restrict, and exclude ill employees?
 2. Did the employees working with the food in question effectively wash their hands and is hand washing facilities adequate?
 3. Is there an approved, alternate procedure to no bare hand contact (i.e., variance with an approved HACCP plan) in place and was it followed before the bare hand contact?
 4. Has there been an opportunity for the employee's hands to become contaminated?
- (f) EHS should examine the location of hand washing sinks in relation to where food is being prepared. A basic distance measurement is referenced within **Part-I Section F - Handwashing located within the "Food Service Establishment Manual for Design, Installation and Construction"** as a guideline when considering the location and number of hand washing sinks required in a food establishment during the plan review process. While this information can be used to assist with the review process, it should not be used as the sole basis for determining whether there is an adequate number of hand washing sinks or whether the hand washing sinks are conveniently located.
- (g) Special emphasis should be placed on spacing in and around fixed equipment, the expected staffing, and the flow of food throughout a food establishment. For instance, a kitchen may be 30 feet in length and 12 feet wide. Although the size of the kitchen may dictate only one hand washing sink using the referenced distance measurement in the plan review manual, if a prep table the length of the line is placed between the line and the hand washing sink, the hand washing sink may not be conveniently located. Likewise, one hand washing sink located at the end of cook line is useless to employees working at the other end if there is limited space for employees to go around one another during busy periods.
- (20) Assessing Compliance with Approved Procedures: When conducting certain specialized processes, the Chapter requires variances and HACCP plans. This is because such processes carry a considerable risk if not conducted under strict controls. For food service establishments conducting specialized processes, each inspection should involve a review of the written variance, if applicable, and the implementation of the HACCP plan to ensure that food safety hazards are being consistently controlled.
- (21) Assessing Special Requirements Related to Highly Susceptible Populations (HSP):
- (a) Food establishments that serve highly susceptible populations (HSP) must adhere to additional requirements as specified under Rule 511-6-1-.04 subsection (9) of the Chapter. Every effort should be made to inspect such



facilities during preparation, service, or other applicable times to assess these additional requirements as well as those in other Rules of the Chapter.

- (b) Because those persons who are very young, elderly, or who live in a facility that provides custodial care are extremely vulnerable to foodborne illness because of age or health status, it is important that risk factors be controlled on-site in a timely manner. Inspections of HSP facilities should be conducted by EHS knowledgeable in the control of foodborne illness risk factors who take extra care to assure that the most vulnerable segment of the population are not at risk.

(22) Assessing Labeling, Storage, and Use of Poisonous and Toxic Chemicals:

- (a) During each inspection, the proper labeling, storage, and use of poisonous and toxic chemicals should be verified. Containers of poisonous or toxic materials and personal care items shall bear a legible manufacturer's label. Working containers used for storing poisonous or toxic materials such as cleaners and sanitizers taken from bulk supplies should be clearly and individually identified with the common name of the material. Only chemicals that are necessary to the operation and maintenance of a food establishment, such as for the cleaning and sanitizing of equipment and utensils and the control of insects and rodents, should be in the food establishment. Medicines necessary for the health of employees may be allowed in a food establishment, but they should be labeled and stored to prevent contamination of food and food-contact surfaces.
- (b) EHS should verify that solutions containing poisonous and toxic chemicals, like mop water, are discarded in an appropriate service sink to prevent contamination of food and food-contact surfaces. In addition, they should check delivery trucks to verify that food is protected from chemical contamination during shipment. Any food that has been cross-contaminated with poisonous or toxic chemicals should be discarded or rejected immediately.

(23) Assessing Compliance with Consumer Advisory:

- (a) EHS should ascertain whether animal foods such as beef, eggs, fish, lamb, milk, pork, poultry, or shellfish are served or sold raw, undercooked, or without otherwise being processed to eliminate pathogens, either in ready-to-eat form or as an ingredient in another ready-to-eat food. They should review the menu or food list to verify that a consumer advisory with a disclosure and reminder is present as specified under Rule 511-6-1-.04 subsection (7)(e) of the Chapter.
- (b) In addition to reviewing the menu or food list, EHS should ask whether raw or undercooked foods are served or sold routinely or seasonally. It is useful to know foods that are often served in this manner such as oysters-on-the half shell, hollandaise sauce, béarnaise sauce, eggnog, salad dressings, hamburgers to order, or sunny-side up eggs.



(24) Evaluating Basic Sanitation and Facilities (Good Retail Practices):

(a) An important part of a risk-based, routine inspection is to review how the food establishment actively monitors the active managerial control of foodborne illness risk factors and interventions; however, overall sanitation should not be overlooked. Systems to control basic operational and sanitation conditions within a food establishment, referred to as Good Retail Practices (GRPs), are the foundation of a successful food safety management system. GRPs found to be out-of-compliance may give rise to conditions that may lead to foodborne illness, e.g., sewage backing up in the kitchen. Just as monitoring is required by the food establishment to ensure that foodborne illness risk factors are controlled and interventions are in place, monitoring of basic sanitation conditions in the food service establishment allows the operator an excellent opportunity to detect weaknesses and initiate actions for improvement. Basic operational and sanitation programs must be in place to:

1. Protect products from contamination by biological, chemical, and physical food safety hazards
2. Control bacterial growth that can result from temperature abuse during storage
3. Maintain equipment, especially equipment used to maintain product temperatures.

(b) Examples of concerns addressed by the basic operation and sanitation programs mentioned above include the following:

1. Pest control
2. Food protection (non-critical)
3. Equipment maintenance
4. Water
5. Plumbing
6. Toilet facilities
7. Sewage
8. Garbage and refuse disposal
9. Physical facilities.

E. ACHIEVING ON-SITE AND LONG-TERM COMPLIANCE:

(1). Developing an Effective Compliance and Enforcement Protocol:

(a) Compliance and enforcement are essential elements of the Chapter and encompass all voluntary and regulatory enforcement actions taken to achieve compliance with it. Rule 511-6-1-.10 establishes a compliance and enforcement protocol that will result in credible follow-up for each violation noted during an inspection, especially violations related to foodborne illness risk factors and Chapter interventions. Lack of follow-up on the part of the



- (b) County Health Authority signals to the operator that the critical violations noted were not important.
 - (c) The resolution of out-of-compliance foodborne illness risk factors and the Chapter's interventions must be documented in each food establishment record. The desired outcome of the Chapter is an effective compliance and enforcement program that is implemented consistently to achieve compliance with its Rules and Regulation requirements.
 - (d) It is essential that local Health Authorities develop a written compliance and enforcement protocol that details the order in which both voluntary corrections may be taken on the part of the operator and involuntary enforcement actions are to be taken on the part of the local Health Authority as prescribed within Rule 511-6-1-.10 of the Chapter. Involuntary enforcement actions include, but are not limited to, such activities as warning letters, re-inspections, citations, administrative fines, hearings, permit suspensions, and permit revocation.
 - (e) Food establishments with a history of noncompliance or with the number of foodborne illness risk factors and interventions violated at a level as indicated within Rule 511-6-1-.10 of the Chapter thereby warranting enforcement action, signals the need for either a strong enforcement response or an alternate approach to compliance to protect public health. Such compliance can be achieved through active managerial control, behavioral change by using tools such as Risk Control Plans.
 - (f) Voluntary corrections taken on the part of the operator include, but are not limited to, such activities as on-site corrections at the time of inspection, voluntary destruction, risk control plans, and remedial training. Obtaining voluntary corrections by the operator can be very effective in achieving long-term compliance. Voluntary corrections by the operator are referred to in this manual as "intervention strategies." Intervention strategies can be divided into two groups:
 - 1. Those designed to achieve immediate on-site correction
 - 2. Those designed to achieve long-term compliance.
 - (f) Successful intervention strategies for out-of-control foodborne illness risk factors can be tailored to each operation's resources and needs. This will require EHS to work with the operator to identify weaknesses in the existing food safety management system and consulting with the operator to strengthen any weak areas noted.
- (2) On-site Correction:
- (a) On-site corrections are intended to achieve immediate corrective action of out-



- (b) of-control foodborne illness risk factors posing an immediate, serious danger to the consumer during the inspection. Usually these violations are "operational" rather than structural and can be addressed by management at the time of the inspection.
 - (c) **It is essential to consumer protection and to the Health Authority's credibility for on-site correction to be obtained for any out-of-control foodborne illness risk factors before completing the inspection and leaving the food establishment.** Obtaining on-site correction conveys the seriousness of the violation to the management of the food service establishment. Failure to require and document on-site correction when an out-of-control risk factor has been identified implies that the risk factor has little importance to food safety.
 - (d) When recommending on-site correction, effective communication regarding out-of control foodborne illness risk factors is essential and can be accomplished best by:
 - 1. Discussing food safety concerns in words that can be easily understood by the person in charge and employees.
 - 2. Conveying the seriousness of the out-of-control foodborne illness risk factors in terms of increased risk of illness or injury.
 - (d) During the discussion of inspection findings with the person in charge, EHS should keep the discussion focused on correction of violations that present an immediate danger to the consumer. Discussion of less serious Chapter violations should be deferred until out-of-control foodborne illness risk factors are discussed and on-site correction is obtained.
 - (e) In most cases, selecting the most appropriate on-site correction when out-of-control foodborne illness risk factors are observed will be straightforward; however, in instances such as improper cooling, the appropriate corrective action may be more complicated. Since determining on-site correction depends on a number of factors, an EHS may need to conduct a hazard analysis of the food in order to determine the appropriate course of action to take.
- (3) Intervention Strategies for Achieving Long-term Compliance:
- (a) While on-site correction of out-of-control foodborne illness risk factors is essential to consumer protection, achieving long-term compliance and behavior change is equally important. Overcoming several misconceptions about long-term compliance will help in achieving a desirable change of behavior. For example, in jurisdictions using a 44-item inspection report in which only observed violations are marked, it is often taken for granted that if there are no violations marked, the foodborne illness risk factors are being controlled. This is not necessarily true since the observation of Chapter violations is subject to

many variables such as the time of day, day of the week, or duration of the inspection. An inspection system that records only observed violations rather than the actual status of all foodborne illness risk factors, such as whether the risk factor was in compliance, not observed, or not applicable to the operation, may be unable to detect some foodborne illness risk factors that are continually or cyclically out of control.

- (b) Another misconception is that training alone will result in foodborne illness risk factors being controlled. While training may help, there is no guarantee that knowledge acquired will equate to knowledge applied in the workplace. In order for knowledge to translate into changed behavior, it must be reinforced and the behavior must be repeated for a period of time sufficient for the behavior to become an ingrained pattern. Another assumption is that regulatory enforcement actions such as citations or administrative hearings or on-site corrections alone will automatically result in future management control. Unfortunately, there is no assurance that any of these actions will result in the long-term control of foodborne illness risk factors.
- (c) The operator may best achieve long-term compliance through voluntary actions. If an operator supports the concept that a food safety management system is needed, there is a better chance that long-term compliance will be achieved. The following are ways operators can better ensure long-term active managerial control of foodborne illness risk factors.

(c) Change Equipment and Layout:

- 1. Critical limits are difficult to achieve when equipment does not work properly. In addition, this is why maintenance and replacement of equipment is important as well. Proper calibration of equipment is vital to achieving food safety. When calibration is unsuccessful or is not feasible, equipment should be replaced. In addition to equipment malfunctioning, poor equipment layout can present opportunities for cross contamination and must be considered. This is why good plan and specification review is important in the construction, renovation and remodeling food service establishments. For example:
 - a. Hamburgers with uniform thickness and weight are not all reaching a safe cooking temperature in a given time. Upon examination, it is determined that the grill is distributing heat unevenly. A new element is installed to correct the problem.
 - b. Splash from a nearby hand washing sink is seen on a prep table. A splashguard is installed to prevent cross contamination from the hand washing sink to the prep table.

- (4) Establish Buyer Specifications: Written specifications for the goods and services purchased by a food establishment prevent many problems. For example:



- (a) Fish posing a parasite hazard and intended for raw consumption have not been frozen for the specified time and temperature and no freezing equipment is on-site at the food service establishment. Buyer specifications are established to place the responsibility for freezing the fish on the supplier.
 - (b) Lobster tails, hamburgers, or other products cooked with a set time parameter on a conveyor are not reaching the proper temperature in the specified time because they are larger than the size for which the conveyor is calibrated. Buyer specifications are established to restrict the size of products received from the supplier.
- (5) Develop and Implement Recipe/Process Instructions: Simple control measures integrated into recipes and processes can improve management control over foodborne illness risk factors. For example:
- (a) Process instructions that specify using color-coded cutting boards for separating raw animal foods from ready-to-eat products are developed to control the potential for cross contamination.
 - (b) Pasteurized eggs are substituted in recipes that call for raw or undercooked eggs to reduce the risk of foodborne illness.
 - (c) Commercially precooked chicken is used in recipes calling for cooked chicken such as chicken salad to reduce the risk of contaminating food-contact surfaces and ready-to-eat food with raw chicken.
 - (d) Pasta is chilled in an ice bath immediately after cooking and before apportioning into single servings. This is specified in the procedures for cooking spaghetti.
- (6) Establish First-In-First-Out (FIFO) Procedures: Product rotation is important for both quality and safety reasons. “First-In-First-Out” (FIFO) means that the first batch of product prepared and placed in storage should be the first one sold or used. Date marking foods as required by the Chapter facilitates the use of a FIFO procedure in refrigerated, ready-to-eat, TCS foods. The FIFO concept limits the potential for pathogen growth, encourages product rotation, and documents compliance with time/temperature requirements.
- (7) Develop and Implement Standard Operating Procedures (SOPs):
- (a) Following standardized, written procedures for performing various tasks ensures that quality, efficiency, and safety criteria are met each time the task is performed. Although every operation is unique, the following list contains some common management areas that can be controlled with SOPs:
 - 1. Personnel (disease control, cleanliness, training)

2. Facility maintenance
3. Sanitary conditions (general cleaning schedule, chemical storage, pest control, sanitization of food-contact surfaces)
4. Sanitary facilities (approved water supply and testing, if applicable, scheduled in-house inspection of plumbing, sewage disposal, handwashing and toilet facilities, trash removal)
5. Equipment and utensil maintenance.

(b) SOPs can also be developed to detail procedures for controlling foodborne illness risk factors:

1. Procedures are implemented for measuring temperatures at a given frequency and for taking appropriate corrective actions to prevent hazards associated with inadequate cooking.
2. Adequate handwashing is achieved by following written procedures that dictate frequency, proper technique, and monitoring.

(8) Develop and Implement Risk Control Plans (RCPs):

- (a) A Risk Control Plan (RCP) is a concisely written management plan developed by the food service operator with input from the EHS that describes a management system for controlling specific out-of-control risk factors. A RCP is intended to be a voluntary strategy that the EHS and the PIC jointly develop to promote long-term compliance for *specific* out-of-control risk factors. For example, if food is improperly cooled in the establishment, a system of cooling methods, monitoring and record keeping outlined in an (RCP) can ensure that new procedures are established to adequately cool the food in the future. An RCP should require that the basic control systems in the plan be implemented for a designated period of time (e.g., 60 – 90 days) and allow EHS oversight. The longer the plan is implemented, the more likely it is that the new controls will become "habits" that continue to be used in the food establishment after EHS oversight ends.
- (b) A RCP should identify the gaps in the process (i.e. the identified problem) and stress simple control measures that can be integrated into the daily routine to address the gaps that prevent compliance with the Chapter. It should be brief, no more than one or two pages for a single risk factor, and address the following points in very specific terms:
1. What is the risk factor to be controlled?
 2. How is the risk factor controlled?
 3. Who is responsible for the control?
 4. What monitoring and record keeping is required?
 5. Who is responsible for monitoring and completing records?
 6. What corrective actions should be taken when deviations are noted?
 7. How long is the plan to continue?



8. How are the results of the (RCP) communicated to you?

(c) By implementing an RCP, the food service operator will have the opportunity to determine the appropriate corrective action for the identified problem and design an implementation strategy to best suit their facility and operation. Since the RCP is tailored to meet the needs of the establishment, the operator takes complete ownership of the plan and is ultimately responsible for its development and implementation. Your role as the EHS is to consult with the operator by suggesting ways that the risk factor(s) might be controlled. By creating an RCP, the operator realizes that a problem exists in their food safety management system and commits to a specific correction plan rather than merely acknowledging a single violation. Follow up by telephone or in person indicates to the operator your interest in seeing their plan succeed. This also gives you an opportunity to answer any questions and offer feedback to make the RCP more useful. See the following example of a risk control plan:

Example - Risk Control Plan (Part A)

Example Risk Control Plan for Chili				
Establishment Name: ABC		Establishment		Type of Facility: Full Service
Physical Address: 123 Any			Street	
Person in Charge: John Doe				
City: Any City	State: Any State		Zip: 00000	County: Any County
Inspection Time In: 9:00 a.m.	Inspection Time Out: 12:30 p.m.	Date: July 12, 2001	EHS's Name: Jane Doe	
Agency: Your jurisdiction				

Specific observation noted during inspection:

Temperature of chili in walk-in cooler was 65 °F after cooling in the walk-in all night (12 hours).

Gap or identified problem:

Chili was observed in a deep plastic container on the walk-in cooler floor.

Applicable code violation(s):

511-6-1-.04(6)(d) - Chili not cooled from 135 °F - 41 °F in 6 hours or less

Risk factor to be controlled:

Improper Holding Temperatures (Cooling)



What must be done to achieve compliance in the future?

Cool from 135 to 41 °F within 6 hours provided that food is cooled from 135 to 70 °F in < 2 hours.

Example - Risk Control Plan (Part B)

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)

Conduct a Trial Run to Determine if Cooling Procedure Works:

The head chef will portion chili at a temperature of 135 °F in cleaned and sanitized 3-inch metal pans, and place them uncovered in the coolest, protected area of the walk-in cooler (top shelf). He will record the time on the "Time-Temperature Log." At one and half hour mark, the temperature of the chili will be checked and recorded. If the temperature of the chili is not 70 °F or less, the head chef will check the walk-in cooler thermometer temperature and several food items (to ensure proper operation) then place the metal pan of chili in an ice bath slurry and return it to the walk-in cooler chili and monitor at 30 minute intervals. When the temperature is 70°F or less within 2 hours, the time and temperature will be recorded, and cooling will continue. At the three and a half hour mark, the temperature of the chili will again be checked and recorded. If the chili is 41 °F or less, the cooling procedure will be established. If the chili is not 41°F or less, other cooling options will be used (see below).

Procedure:

When there is less than one gallon of chili left over at the end of the day, the head chef will log the volume and disposition of the chili. When the volume is greater than one gallon, the established procedure will be followed. The head chef will complete the Temperature Log daily for 30 days. The general manager will review the log weekly for completeness and adherence to the procedure.

Other options that may be suggested to the operator include: purchasing a data logger to record cooling overnight; discarding any leftover chili at the end of the day; using chill sticks/ice paddles; using a ice bath to cool leftovers prior to storage; or purchasing a blast chiller.

How will the results of implementing the RCP are communicated back to the EHS:

The log will be faxed to the local EHS _____ for review each Friday.
As the person in charge of the _____ located at _____,
I have voluntarily developed this risk control plan, in consultation with
_____ and understand the provisions of this plan.

(County Health Authority) (Date)



F. INSPECTION FORM AND SCORING:

(1) The Inspection Form:

- (a) The Georgia Department of Public Health (DPH)'s current approved Food Service Establishment Inspection Report Form and Food Service Inspection Report Addendum Form(s), as referenced within Chapter 511-6-1 are the official documents utilized by the Health Authority for documentation of compliance of the food establishment with its regulatory requirements. The goal of the inspection form is to clearly, concisely, and fairly present the compliance status of the food establishment and to convey compliance information to the permit holder or person in charge at the conclusion of the inspection. Likewise, through public display, the food service inspection report form will serve to make the dining public aware of the compliance status of the food service establishment. In this way, the dining public can make a well informed decision concerning their health.
- (b) The food service inspection report addendum form should be kept in the food establishment's files for subsequent compliance actions and review before the next inspection. Individual inspection reports are to be made available for public review in accordance with the Georgia Open Records Act criteria.
- (c) The current (DPH) approved Food Service Establishment Inspection Report Form and the Food Service Inspection Report Addendum Form(s) are to be completed during initial, routine, follow-up, and informal follow-up inspections as required by the Chapter. The Addendum Forms may be completed for construction/pre-operational inspections.

(2) Debiting Methodology:

- (a) If a violation exists during an inspection, **it shall always be marked on the inspection report, even if corrected on site.** Violations existing at the time of the inspection probably would have persisted if it were not for the inspection. A slight violation, such as one dirty utensil among hundreds of clean utensils, does not indicate that the food establishment is significantly deviating from the Chapter requirements; therefore, discretion in marking is required.
- (b) It is very important to investigate the root causes of violations and mark them appropriately. Without taking this extra step, EHS will merely point out violations and will not identify weaknesses in the management system in place. If long-term control of the behaviors or practices leading to the violations is expected, EHS must identify the causes.

(3) Grading, Posting of Inspection Report Forms and Enforcement:

- (a) The inspection grading will be as referenced within Rule 511-6-1-.10 of the Chapter. The overall Score/Grade along with the frequency of occurrence of



Risk Factors/ Public Health Interventions (RF/PHI) and Good Retail Practices (GRP) being out of control or repeated will serve as the basis for triggering follow-up inspections or other forms of enforcement action such as voluntary or in-voluntary closure of the establishment. In addition, scoring and posting the food service inspection report form will provide a mechanism for consumers to make informed choices regarding their health.

- (b) Posting of the Food Service Establishment Inspection Report Form and the Food Service Inspection Report Addendum Form(s) will be as per Chapter 511-6-1.
- (c) Enforcement of the Chapter will be as per Rule 511-6-1-.10 Compliance Procedures.

(4) Closing Conference:

- (a) The closing conference should include a detailed discussion of the food establishment's plans for correcting violations found during the inspection. The evidence collected or observed during the inspection and the alternatives available for compliance should be emphasized. On-site corrections made during the inspection must be recorded on the inspection report and in the closing conference.
- (b) The compliance plan should address changes in procedures that will prevent the recurrence of noted violations. The food establishment's compliance plans should be formally documented on the inspection report form. Follow-up letters may be necessary to elicit fulfillment of these agreements. It is

important to stress to the operator that long-term correction of violations related to foodborne illness risk factors and Chapter interventions is far more important than corrections of core items.

(5) Summary

- (c) Although a food service operator has the responsibility for establishing a food safety management system for controlling foodborne illness risk factors, EHS have a vital, multi-faceted role in consumer protection. It is essential that EHS are provided with the proper training, equipment, time, and resources to adequately perform their jobs.

The primary role of EHS is to ensure that the operator has effective control of foodborne illness risk factors. Once EHS have established a dialogue with the person in charge and employees, conducted a menu/food list review, and established a dialogue with the person in charge, inspectors will have enough information to mentally place menu items into one of the three process flows. The inspection can then focus on assessing the operator's active



managerial control of foodborne illness risk factors associated with each process.

Once out-of-control foodborne illness risk factors are identified, the role of EHS shifts to assisting the operator with strengthening the existing food safety management system through intervention strategies designed to achieve immediate and long-term compliance. With the EHS's assistance, a retail and food service operator can achieve long-term behavioral change resulting in a reduction in risk factor occurrence and an increase in public health protection.



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"> ▶ Poultry ▶ Wild Game Animals (live-caught or field-dressed) ▶ STUFFED fish, meat (including, but not limited to, pork), poultry, ratites, or pasta containing fish, meat, poultry, or ratites ▶ STUFFING containing fish, meat, poultry, or ratites 	165°F (74°C) for 15 seconds 7-log reduction of <i>Salmonella</i> (or 7D kill)					
Microwave Cooking – for raw animal foods Covered, rotated, or stirred throughout or midway through the cooking process and held covered for 2 minutes	165°F (74°C) with 2 minute post-cooking hold (7D kill of <i>Salmonella</i>)					
<ul style="list-style-type: none"> ▶ COMMINUTED fish, ground beef, or other meats ▶ RAW SHELL EGGS – not prepared for immediate service (combined or hot held). (also see highly susceptible populations) ▶ Ratites ▶ Mechanically-tenderized and injected meats 	155°F (68°C) for 15 seconds OR 158°F (70°C) for <1 second OR 150°F (66°C) for 1 minute OR 145°F (63°C) for 3 minutes (5D kill of <i>Salmonella</i>)					
<ul style="list-style-type: none"> ▶ Raw shell egg prepared for immediate service ▶ Commercially-raised game animals ▶ Other raw animals not otherwise specified in this table 	145°F (63°C) for 15 seconds (3D kill of <i>Salmonella</i>)					
WHOLE MUSCLE, INTACT BEEF STEAK that has been properly labeled as such may be served undercooked as ready-to-eat if not serving a highly susceptible population	Surface temperature ≥145°F (63°C) and cooked color change on all external surfaces					
PLANT FOOD FOR HOT HOLDING: fruits & vegetables requiring time/temperature control for safety that will be hot held	135°F (57°C) - cooked to the hot holding temperature					
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 ¹	≤ 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			1. Relative humidity >90% for ≥ 1 hour as measured in the cooking chamber or oven vent, or in a moisture-impermeable bag that provides 100% humidity		
145°F (62.8°C)	4					



COOKING and REHEATING

A. COOKING Critical Limits (continued)

COOKING RAW ANIMAL FOODS USING A NON-CONTINUOUS COOKING PROCESS
<ul style="list-style-type: none"> ▶ 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"> ✓ Describes the process and critical limits for critical control points identified below ✓ Describes monitoring, corrective actions, and recordkeeping procedure ✓ Include a system for clearly marking undercooked animal food ✓ Address separation of partially-cooked animal foods from ready-to-eat foods ▶ Initial heating process is completed with 60 minutes ▶ Immediately after heating, product is cooled to: <ul style="list-style-type: none"> ✓ Within 2 hours from 135°F (57°C) to 70°F (21°C); and ✓ Within a total of 6 hours from 135°F to 41°F or less ▶ 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

REHEATING COOKED TIME/TEMPERATURE CONTROL FOR SAFETY FOODS FOR HOT HOLDING	
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"> ✓ rotated or stirred ✓ covered ✓ allowed to stand for 2 minutes after reheating
▶ 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

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

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

COLD HOLDING OF TIME/TEMPERATURE CONTROL FOR SAFETY (TCS) FOODS	
Process / Product	Critical Limit
▶ 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

DATE MARKING FOR READY-TO-EAT (RTE), TIME TEMPERATURE CONTROL FOR SAFETY (TCS) FOODS	
Process / Product	Critical Limit
▶ Refrigerated RTE, TCS Foods: ✓ prepared in the establishment ✓ opened package from a commercial processing plant ✓ held for more than 24 hours	✓ 7 days at 41°F (5°C) or less ✓ Marked to indicate the date or day the food must be consumed on the premises, sold, or discarded ✓ Day of “preparation” or “opening is counted as “Day 1” ✓ Date mark not to exceed manufacturer’s use by date
▶ RTE, TCS Foods Subsequently Frozen:	✓ 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

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 an 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	
41°F (5°C) or less	24 hours	Refrigerated room temperatures and cleaning frequency to be documented
> 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.



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

- It is often difficult to observe how an establishment cleans and sanitizes food contact surfaces and equipment that will not be processed through the 3-compartment sink or a mechanical dishmachine. Meat slicers, cooking kettles, broasters, blenders, and large mixing bowls are just a few examples of the types of equipment that will have to be cleaned and sanitized in place. During the inspection, some time should be allocated to obtaining information from front line employees as to the procedure and frequency for cleaning and sanitizing these large pieces of equipment. It is best to have the person responsible for cleaning and sanitizing the food contact surface/equipment explain and/or demonstrate the procedure.



ASSESSING ACTIVE MANAGERIAL CONTROL FOR RISK FACTOR AREAS

APPROVED SOURCE

SUMMARY: APPROVED SOURCE AREAS

- A. Assessing Active Managerial Control of Approved Source and Receiving
- B. Assessing Active Managerial Control for Parasite Destruction
- C. Assessing Active Managerial Control for Shellstock

A. Critical Limits for APPROVED SOURCES & RECEIVING

- ▶ Assessing Active Managerial Control of Food Deliveries
 - Delivery vehicle clean, free from insects / vermin; no evidence of cross contamination
 - Time-Temperature Control for safety foods delivered under refrigeration are 41°F or below (unless specified in Law)
 - Frozen foods do not show evidence of thawing or freezing
 - Evaluations indicate no signs of spoilage; off odors; discoloration; thawing of frozen foods; ice crystals; etc.
 - Product packaging is not damaged exposing food to contamination
 - Cans do no bulge, leak, or have creased seams
 - All products are within their “use-by” dates

B. Critical Limits for PARASITE DESTRUCTION

- ▶ Assessing Active Managerial Control of Parasite Destruction
 - Before service or sale in ready-to-eat form, raw, raw-marinated, partially cooked, or marinated-partially cooked FISH shall be:
 - ✓ Frozen and stored at a temperature of -4°F (-20°C) or below for a minimum of 168 hours (7 days) in a freezer
 - ✓ Frozen at -31°F (-35°C) or below until solid and stored at -31°F (-35°C) or below for a minimum of 15 hours
 - ✓ Frozen at -31°F (-35°C) or below until solid and stored at -4°F (-20°C) for a minimum of 24 hours
 - The above freezing requirement for parasite destruction do not apply to:
 - ✓ Molluscan Shellfish
 - ✓ Tuna of species *Thunnus alalunga*, *Thunnus albacares* (Yellowfin tuna), *Thunnus atlanticus*, *Thunnus maccoyii* (Bluefin tuna, Souther), *thunnus obesus* (Bigeye tuna), or *Thunnus thynnus* (Bluefin tuna, Northern)
 - ✓ Aquaculture fish, such as salmon, that
 - ❖ If raised in open water, are raised in net-pens
 - ❖ Are raised in land-based operations such as ponds or tanks, and
 - ❖ Are fed formulated feed, such as pellets, that contains no live parasites infective to the aquaculture fish
 - ❖ Fish eggs that have been removed from the skein and rinsed
 - ✓ Freezing records, creation and retention
 - ❖ Freezing temperature and time shall be recorded and the records retained for 90 days beyond the time of service or sale of the fish or
 - ❖ A written agreement or statement from the supplier stipulating fish are frozen to the required temperature and time, retained for 90 days beyond the time of service or sale of the fish or
 - ❖ A written agreement or statement from supplier or aquaculturist stipulating that the fish were raised and fed feed with no live parasites infective to aquaculture fish is to be retained for 90 calendar days beyond the time of service and sale of the fish

C. Critical Limits for SHELLSTOCK

▶ Assessing Active Managerial Control of Molluscan Shellfish

- Shellstock obtained from source identified on the Interstate Certified Shellfish Shippers List (ICSSL) which can be found at:
<http://www.fda.gov/Food/FoodSafety/Product-SpecificInformation/Seafood/FederalStatePrograms/default.htm>
- Shellstock shall be obtained in container bearing legible source identification tags or labels:
 - ✓ Harvester's tag or label
 - ❖ Harvester's identification number that is assigned by the shellfish control authority
 - ❖ The date of harvesting
 - ❖ Most precise identification of harvest location including the abbreviation of the name of the state or country in which the shellfish are harvested
 - ❖ Type and quantity of shellfish
 - ❖ Statement in bold, capitalized type: **THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTIED OR RETAGGED AND THEREAFTER KEPT ON FILE FOR 90 DAYS**
 - ✓ Dealer's tag or label
 - ❖ Dealer's name and address, and the certification number assigned by the shellfish control authority
 - ❖ The original shipper's certification number including the abbreviation of the name of the state or country in which the shellfish are harvested
 - ❖ The same information as specified for the harvester's tag or label (above)
 - ❖ Statement in bold, capitalized type: **THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTIED AND THEREAFTER KEPT ON FILE FOR 90 DAYS**
 - ✓ Shellfish tag maintenance:
 - ❖ Remain attached to the container in which the shellstock are received until the container is empty;
 - ❖ The date when the last shellstock from the container is sold or served must be recorded on the tag or label;
 - ❖ Tags are to be retained in chronological order for 90 days from the date recorded on the tag or label (the date when the last shellstock from the container is sold or served).
 - ✓ National Shellfish Sanitation Program also requires the following label in tags:
RETAILER INFORM YOUR CUSTOMERS. Thoroughly cooking foods of animal origin such as beef, eggs, fish, lamb, poultry or shellfish reduces the risk of foodborne illness. Individuals with certain health conditions may be at higher risk if these foods are consumed raw or undercooked. Consult your physician or public health official for further information. <http://www.issc.org>
- Shucked Shellfish
 - ✓ Shipped in nonreturnable containers
 - ✓ May be removed from original containers for displaying/dispensing if the labeling information is retained and correlated to the date when, or dates during which, the shellfish are sold or served
 - ✓ Labeled with name, address and certification number of the shucker-packer or repacker; and
 - ❖ "sell by" date for < ½ gallon or
 - ❖ "date shucked" for ≥ ½ gallon



**Some Questions for Assessing Active Managerial Control for
APPROVED SOURCES AND RECEIVING**

- How do you verify that the food you receive is from an approved source?
- Do you have purchase specifications for specific food items?
- Do you any food products that require the supplier to sign a certificate of conformance with your operation?
- What method do you use to verify the source of your shellfish?
- How frequently do have food delivered to your facility?
- Have you established specific times of the days when food is to be delivered to your facility or do you work within the parameters of the supplier's schedule?
- Who is responsible for checking food delivered to the facility?
- What do you check when food is delivered to your establishment?
- How do you know if the food is at proper temperature when it is received?
- Do you maintain any receiving logs?
- What system do you have in place to ensure that the fish you serve raw or undercooked has been frozen to destroy parasites?

**Tips for Assessing Active Managerial Control for
APPROVED SOURCES AND RECEIVING**

- The time and day of the inspection is important when assessing whether foods are received from safe sources and in sound condition. Food may be received in the food establishment on set days. Ask questions to ascertain the day or days that deliveries are received and also the receiving procedures in place by the food establishment. Schedule inspections at times when it is known that product will be received by the food establishment.
- If food is being delivered during the inspection, you should:
 - ✓ Verify internal product temperatures
 - ✓ Examine package integrity upon delivery
 - ✓ Look for signs of temperature abuse (e.g., large ice crystals in the packages of frozen products)
 - ✓ Examine the delivery truck and products for potential for cross contamination
 - ✓ Observe the food employees behaviors and practices as they relate to the establishment's control of contamination and holding and cooling temperatures of received products
 - ✓ Review receiving logs and other documents, product labels, and food products to ensure that foods are received from regulated food processing plants (no foods prepared at home) and at the proper temperature.

**Tips for Assessing Active Managerial Control for
APPROVED SOURCES AND RECEIVING (continued)**

- When evaluating approved sources for shellfish, such as clams, oysters, and mussels, you should ask whether shellfish are served at any time during the year. If so, review the tags or labels to verify that the supplier of the shellfish is certified and on the most current Interstate Certified Shellfish Shippers List found at:

<http://www.fda.gov/Food/FoodSafety/ProductSpecificInformation/Seafood/FederalStatePrograms/default.htm>

Note whether all required information is provided on the tags or labeled and that these records have been retained for 90 days and stored in chronological order.

- Verify that fish are commercially caught and harvested from reputable vendors. If fish are being delivered during the inspection or if they were received just before your arrival, temperatures should be taken, especially if there are finfish such as tuna, mahi-mahi, bluefish, mackerel, and snapper. These fish are subject to scombrototoxin formation if time/temperature abused. Verify freshness by checking the gills, eyes, and bodies of the fish for any discoloration or off odors.
- With exceptions, fish intended for raw or undercooked consumption should be assessed to ensure they have been frozen for the required time and temperature to destroy parasites. This can be verified by either reviewing freezing records or verifying that a letter of guarantee from the supplier/distributor is kept on file. If freezing is conducted on-site, verify that the freezing records are maintained for at least 90 days beyond the date of sale or service.



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, Scrombrotoxin (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/Scrombrotoxin/ 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	Scrombrotoxin, 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