

**Massachusetts
Public Health Inspector Training
(MA PHIT)
Food Certificate Program
Day 2, Session 2
Risk Based Inspections
and Comprehensive HACCP Systems**

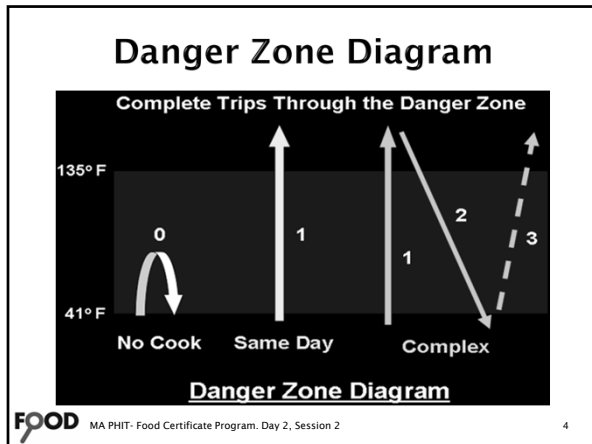
Massachusetts Requirement

- 105 CMR 590.010(G)
Inspector Training
 - (1) Any person conducting food inspections for the board of health shall be knowledgeable in foodborne disease prevention, **application of the hazard analysis critical control point principles**, and the requirements of 105 CMR 590.000 as they relate to food establishments in their city or town.



HACCP System Development

- Based on FDA Retail HACCP Guide
- Process Approach
 - No cook step
 - Same day service
 - Complex preparation
- Simple



Process-Specific Lists

<u>Process 1</u> No Cook Step	<u>Process 2</u> Same Day Service	<u>Process 3</u> Complex
Sashimi Ceviche Salad Greens Raw Oysters Cole Slaw Tuna Salad (canned tuna)	Fried Chicken Fried Eggs Broiled Fish Hamburger	Gravy Soups Sauces Chili Egg Rolls Tamales

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Flow Diagram

- Flow Diagram (Flow Chart)
 - Shows the step-by-step progression or “flow” of food through a food preparation process
 - May help to identify shortfalls in existing recipes that could result in an out of control hazard
 - May help to develop SOPs for procedures that are common to all recipes

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Flow Diagram

- Use recipes and/or other written/unwritten prep procedures to group food flow into major operational steps:
 - Receiving
 - Storage
 - Cooking
 - Cooling
 - Etc.



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Flow Diagram

No Cook Step

Example:
Tuna Salad
Raw Salmon Sushi

Receiving

Storage

Preparation

Cold Holding

Serving



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Flow Diagram

Same Day Service

Example:
Grilled Chicken Breasts
Cheese Steak Subs

Receiving

Storage

Preparation

Cooking

Hot Holding

Serving



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Flow Diagram

Complex Preparations
 Example:
 Beef Chili
 Egg Rolls

Receiving

Storage

Preparation

Cooking

Cooling

Reheating

Hot Holding

Serving

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Hazard Analysis Table

Ingredient/ Processing Step	Potential Hazard (B, C, P)	Significance (Probability & Severity)	Justification	CCP?
Raw Chicken	B - <i>Salmonella</i> and <i>Campylobacter</i>	Likely & severe	USDA: increased prevalence of <i>Salmonella</i> in poultry	Yes
Seasoning	P - small stones and other physical hazards	Remote	Controlled by prerequisite programs - proper storage of dry goods SOP	No
Cooking	B - pathogenic microorganisms	Likely & severe	Raw meats, poultry, eggs, and seafood are commonly contaminated with pathogenic microorganisms	Yes
Storage	B - pathogenic bacteria may grow and may produce toxin	Unlikely	Controlled by prerequisite programs - monitoring of refrigeration temps	No

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Determining CCP

Example:
 Same Day Service

Hazards:
Salmonella spp.
Campylobacter spp.
Clostridium perfringens
Bacillus cereus
 Etc.

Receiving

Storage

Preparation

Cooking ← CCP1

CCP2 → Hot Holding

Serving

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Process: Same Day Service

Process Step	Hazard(s)	CCP (Y/N)	Critical Limits	Monitoring	Corrective Actions	Verification	Records
Receive	-	N	-	-	-	-	-
Store	-	N	-	-	-	-	-
Prepare	-	N	-	-	-	-	-
Cook	B - Pathogenic microorganism	Y	Temp. of cooked PHFs ≥145° F ≥155° F ≥165° F	What: Temperature How: with T-sticks Frequency: 2 items per batch Who: line cook	Continue cooking, recheck with T-sticks	· Manager review Operational Records (cooking, holding, corrective actions, SOP logs, etc.)	Cooking Temp. Log
Hold	B - growth of spore-forming pathogens	Y	Temp. of cooked PHFs ≥140° F during holding	What: Temperature How: with infrared thermometer Frequency: once every 2 hours Who: line cook	·if < 140° F for 2 hours or less: reheat to 165° F ·if < 140° F for more than 2 hours or no record: discard	· Equipment Calibration · "Spot check" on Critical Limits	Hot Holding Temp. Log
	-	N	-	-	-	-	-

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Exercise

- Each Group
 - Must designate a new speaker/scribe
 - Will be given recipes of a restaurant and assigned a process
 - Tasks:
 - Group menu items for processes
 - No Cook Step (Group D)
 - Same Day Service (Group B)
 - Complex Prep (Group A and Group C)
 - Find the menu items that correspond to the process assigned to your group
 - 5 minutes

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Exercise

- Group A
 - Monk's Café
 - Complex Food Preparations
- Group B
 - Mos Easley Cantina
 - Same Day Service
- Group C
 - Nuovo Vesuvio Ristorante
 - Complex Food Preparations
- Group D
 - MacLaren's Pub
 - No Cook Step

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Exercise

- Each Group
 - Must designate a NEW speaker/scribe
 - Tasks:
 - Establish CCP (or CCPs) for your designated process
 - Establish Critical Limits
 - HACCP Table
 - Complete these columns ONLY
 - Process Steps
 - Hazards
 - Critical Control Point
 - Critical Limit
 - 15 minutes

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Exercise

- Each Group
 - Must designate a NEW speaker/scribe
 - Tasks:
 - Establish Monitoring Procedures
 - Establish Corrective Action Procedures
 - HACCP Table
 - Complete these columns ONLY
 - Monitoring
 - Corrective Actions
 - 10 minutes

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Risk Based Inspection

Risk-based = HACCP-based

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New Regulatory Perspective

**Shifting Focus
from a
Food Safety Inspector
to a
Systems Analyst**

Regulatory Retail Food Programs

**What criteria is an agency using to
measure the effectiveness of its
food program?**

Regulatory Retail Food Programs

- How do you see your job?

- What's the focus of your inspection?
 - Control of Hazards or Code Compliance

- What are your intervention strategies?
 - Follow-up Inspection or Systems Development

Inspections Based on HACCP Principles

Conduct Risk-based Inspections
Hazard Analysis, CCP, Critical Limits

Obtain Correction On-Site (COS)
Corrective Action

Obtain Long-term Compliance
Monitoring, Verification, Record Keeping

Evaluate Program Effectiveness
Program Audit

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The Future of HACCP

Active Managerial Control
of
Foodborne Illness Risk Factors

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Active Managerial Control

The purposeful incorporation of specific actions or procedures by industry management into the operation of their business to attain control over foodborne illness risk factors

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Active Managerial Control

AN
INDUSTRY
FOOD SAFETY
MANAGEMENT SYSTEM

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Application of HACCP Principles

- **Process vs. Product Specific Approach**
- **Risk-based Inspection Methodology**
- **On-site correction based on hazard analysis**
- **Industry Food Safety Management Systems:**
 - Standard Operating Procedures
 - Purchase Specifications
 - Recipe Development
 - Risk Control Plans
 - HACCP Plans

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Conducting Risk-based Inspections

1. **Focus the inspection**
2. **Establish priorities**
3. **Determine risk factors in process flows**
4. **Assess active managerial control of risk factors in process flows**

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Inspection Focus

- The majority of your time should be spent on assessing AMC of risk factors.
- GRPs are also assessed in a risk-based inspection, but:
 - Time constraints must be considered.
 - Most GRPs tend to be static, whereas risk factors tend to be more dynamic.
 - Consider risk when budgeting your time.
- Understanding the food prep processes is VITAL.
- Setting the example is important
- Having the right equipment is also important.

Assessing Active Managerial Control vs. Code Compliance

- Assessing AMC involves more than just assessing compliance with the Code
- You need to ascertain what occurs at times when you're not there
 - Monitoring, corrective action, and verification procedures are in place
- Assessing AMC involves getting to the root of the problem

Assessing Active Managerial Control vs. Code Compliance

- You must ask lots of open-ended questions
- Answers to questions supplement quantitative measurements or observations on the day of the inspection
- An establishment may be in fact IN COMPLIANCE on the day of the inspection, but lack AMC

Setting the Example

- Washing hands before beginning inspection and after engaging in any activity that might contaminate hands
- Sanitizing thermocouple probe before and between taking food temperatures
- Being careful not to touch Ready-To-Eat food with bare hands
- Being careful not to contaminate clean and sanitized food contact surfaces
- Using an effective hair restraint
- Refraining from inspecting facilities while ill

Establishing Priorities



- Review Inspection Reports
- Establish Open Dialogue
- Review the “Menu”
- Conduct Quick Walk-Through

Review Inspection Reports

- Helps to detect trends
- If risk factors are out of control for more than 1 inspection, develop strategy to prevent recurrence
- Especially important when inspectors rotate establishments frequently

Establish Open Dialogue

- With Operator and Employees
 - Builds sense of partnership
 - Promotes sharing of information
 - Let the operator and employees know your food safety priorities

Conduct Menu Review

- May be menu or list of foods
- Can be done at any time
- Helps identify high-risk foods or high-risk processes
- Helps to assess the operational steps that often go unevaluated

Assess Your Target Audience

- Recognize the diversity in the industry
- Recognize the diversity among operators
- Develop a dialogue
- Maintain a focus on FBI risk factors
- Observe, assess, and then respond

Conduct Quick Walk-through

- Helps you observe activities that often go unnoticed
 - Receiving, preparation, cooking, etc.
- Lets you see things that may only be there for a short time
 - Leftovers, cooling, etc.
- Floors, walls, and ceiling portions of the inspection is more static than these operational steps

Risk Factor Priorities

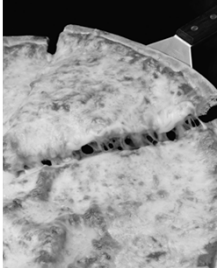
- All Processes (Facility-wide Considerations)
 - No bare hand contact with RTE food
 - Handwashing
 - Restriction and exclusion of sick employees
 - Cross contamination of RTE food with raw animal foods and/or unclean equipment
 - Food source

Risk Factor Priorities

- “No Cook Step” Priorities
 - Cold Holding or Time as Public Health Control (TPHC)
 - Food Source
 - Shellfish, sashimi, etc.
 - Receiving Temperatures
 - Tuna, etc.
 - Freezing to Destroy Parasites
 - Raw fish consumption
 - Cooling from Ambient Temperature

Risk Factor Priorities

- “Same Day Service” Priorities
 - Cooking
 - Hot Holding
 - TPHC



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Risk Factor Priorities

- “Complex Preparation” Priorities
 - Cooking
 - Hot Holding
 - Time as Public Health Control (TPHC)
 - Cooling
 - Cold Holding
 - Reheating

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Assess Active Managerial Control of Risk Factors

- Use Critical Limits in the Code
- Take the time to observe employee practices
- Ask open-ended questions to managers/food employees
- Observe the flow of food to detect cross contamination problems

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Assessing Approved Source

- Time and day of inspection is important
- Evaluate ethnic foods
- Sashimi or ready to eat (RTE) raw seafood
- Invoices or certifications
- Shellfish tags
- Don't assume anything



Assessing Personal Hygiene

- Take the time to observe handwashing and the assignment of duties
- Ask questions
- Employee health/sick policy
- Location/convenience of hand sinks
- Supplies at hand sinks
- Don't forget the wait staff



Assessing Cross Contamination

- Take the time to watch the flow of food
- Observe the placement of sinks and splash from the sinks
- Storage practices
- Warewashing operations (manual and mechanical)
- Visual inspection of surfaces



Assessing Cooking Temperatures

- Proper use of thermometers
 - Dial, thermocouple, or infrared
- Proper procedures used
- Time of inspection is important



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Assessing Hot and Cold Holding

- Assessing equipment versus food
- How many temperatures should you take?
- Proper use of thermometers
- Proper method for taking temperature
- Date marking



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Assessing Reheating

- Time of inspection is important
- Making the correct call
 - Hot holding vs. reheating
- Reheating methods
- Knowing the equipment's capabilities



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Assessing Cooling

- Time of inspection is important
- Blast chillers are great, but have a plan B
- Follow-up on suspicious containers
- Use proper method for taking cooling temperatures



What Do You Do Once Out-of-control Risk Factors Are Identified?

Work with operator to bring risk factors into compliance



An Inspection is an Assessment of an Establishment's Active Managerial Control of FBI Risk Factors

IT IS NOT AN INTERVENTION STRATEGY

Intervention Strategies

- Immediate Corrective Actions
- Risk Control Plans
- In-Service Training
- Consultation on SOPs



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Risk Control Plans

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Food Safety Consultant
Board of Health Member



What is...

- A simple, effective tool to help establish active managerial control of risk factors
- Mutually agreed upon by PIC and Inspector
- Must describe system for mitigating harm



When to...

- Continuous and chronically uncontrolled hazards that require more than the typical inspection report.
- Hazards brought about by procedural or behavior issues such as equipment cleaning and ongoing maintenance, equipment monitoring, employee hygiene
- Not a substitute for a HACCP Plan!



Contents of...

- K.I.S.S.
- No particular form is required
- Include
 - Hazard to be controlled
 - How the hazard will be controlled
 - Who is responsible for control
 - What are the critical limits (where safety is compromised)
 - What monitoring, corrective actions and record keeping are required
 - The corrective action that will be taken should the limit not be met
 - The agreed time frame for correction
 - How the results are to be communicated back to the Inspector




Hazards?

Uncontrolled Process	Hazard
Food Source	?
Freezing	?
Cooking	?
Cooling	?
Reheating	?
Hot Holding	?
Cold Holding	?
Thawing	?
Cleaning	?
Sanitizing	?
Employee Health	?
Employee Hygiene	?
Knowledge of PIC	?




Hazards?

Uncontrolled Process	Hazard
Food Source	Presence of Pathogens, toxins or chemicals
Freezing	?
Cooking	?
Cooling	?
Reheating	?
Hot Holding	?
Cold Holding	?
Thawing	?
Cleaning	?
Sanitizing	?
Employee Health	?
Employee Hygiene	?
Knowledge of PIC	?




Hazards?

Uncontrolled Process	Hazard
Food Source	Presence of Pathogens, toxins or chemicals
Freezing	Failure to destroy parasites/pathogen growth
Cooking	?
Cooling	?
Reheating	?
Hot Holding	?
Cold Holding	?
Thawing	?
Cleaning	?
Sanitizing	?
Employee Health	?
Employee Hygiene	?
Knowledge of PIC	?




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Cold Holding	?
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Cleaning	?
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Hot Holding	?
Cold Holding	?
Thawing	?
Cleaning	?
Sanitizing	?
Employee Health	?
Employee Hygiene	?
Knowledge of PIC	?




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Cleaning	?
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Cold Holding	?
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Cleaning	?
Sanitizing	?
Employee Health	?
Employee Hygiene	?
Knowledge of PIC	?




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Cold Holding	Failure to prevent growth of pathogens
Thawing	Failure to prevent growth of pathogens
Cleaning	Failure to prevent transfer of pathogens
Sanitizing	?
Employee Health	?
Employee Hygiene	?
Knowledge of PIC	?




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Cold Holding	Failure to prevent growth of pathogens
Thawing	Failure to prevent growth of pathogens
Cleaning	Failure to prevent transfer of pathogens
Sanitizing	Failure to destroy remaining pathogens
Employee Health	?
Employee Hygiene	?
Knowledge of PIC	?




Hazards?

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Employee Hygiene	?
Knowledge of PIC	?




Hazards?

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Employee Health	Failure to prevent disease transmission
Employee Hygiene	Failure to prevent physical contamination
Knowledge of PIC	?




Hazards?

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Cold Holding	Failure to prevent growth of pathogens
Thawing	Failure to prevent growth of pathogens
Cleaning	Failure to prevent transfer of pathogens
Sanitizing	Failure to destroy remaining pathogens
Employee Health	Failure to prevent disease transmission
Employee Hygiene	Failure to prevent physical contamination
Knowledge of PIC	Inability to manage food safety effectively




The Form

- Available at FDA.Gov in Annex 5 of:
 - Managing Food Safety: A Regulator's Manual For Applying HACCP Principles to Risk-based Retail and Food Service Inspections and Evaluating Voluntary Food Safety Management Systems**
- <http://www.fda.gov/Food/GuidanceRegulation/HACCP/ucm078287.htm>



Risk Control Plan Exercise

- Each group will be assigned a scenario
- Designate a new speaker for your group
- Develop a Risk Control Plan to address the risk factor issue in regards to your assigned scenario
- 15 minutes



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Risk-based Philosophy Summary

- Gather information about the establishment
- Strive to understand the food system as a whole
- Discover risk factors present in the system
- Determine the degree of active managerial control that an establishment has over the risk factors
- Assist the operator in the design and implementation of interventions to strengthen the food safety management system – Establish Deliverable Objectives that WORK!



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Risk-Based Inspection Methodology

- Retail Food Operations are NOT static.
- Time of Day will be Significant
- Focus on Processes and Food Flows
- Production Schedules vs. Prepare to Order
- Assessing Risk Factors Requires Patience
- Know your Limitations
- Recognize Your Opportunities



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QUESTIONS?

Complete Evaluation Forms

Thank you!



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