

Certified Food Protection Manager Study Guide

A brief guide to help prepare for the Certified Food Protection Manager Exam

Introduction

Food safety is crucial for protecting public health by preventing foodborne illnesses and ensuring the safety of the food supply. Foodborne illnesses, caused by bacteria, viruses, or parasites, can lead to a range of symptoms from mild discomfort, to severe, to even life-threatening, conditions. According to the Center for Disease Control and Prevention (CDC), each year over 76 million people become sick due to foodborne illness, 325,000 people are hospitalized, and 5,000 people die. Each incident costs the food service industry an average of \$74,000. Food safety can help contribute to economic stability by reducing these healthcare costs and lost productivity associated with foodborne diseases. Maintaining food safety builds consumer trust and supports a healthy population.

There are 5 most common risk factors. This study guide will go into detail on each one:

1. Improper hot/cold holding temperatures of time/temperature control for safety (TCS) foods
2. Improper cooking temperatures of food
3. Dirty and/or contaminated utensils and equipment
4. Poor employee health and hygiene
5. Food from unsafe sources

Time & Temperature Control

1. Time/Temperature Control for Safety (TCS)
 - a. TCS foods are those that require specific time and temperature controls to prevent the growth of harmful biological contaminants.
2. The temperature danger zone is 41°F to 135°F—bacteria grow rapidly in this range.
 - a. Cold holding: maintain TCS foods at 41°F or lower.
 - b. Hot holding: keep hot foods at 135°F or higher.
3. Cooking temperatures:
 - a. 165°F – Poultry and any stuffed food items
 - b. 155°F – Ground meats, eggs for later consumption (buffet)
 - c. 145°F – Seafood, fish, and whole-muscle intact meats, eggs for immediate service
 - d. 135°F – Fruits and vegetables
4. Cooling:
 - a. Cooked foods should be rapidly cooled from 135°F to 70°F within 2 hours, and 70°F to 41°F within 4 additional hours
 - b. Proper cooling methods include:
 - i. Adding ice as an ingredient
 - ii. Dividing food into shallow containers
 - iii. Ice wands
 - iv. Ice baths
5. Reheating:
 - a. Cooked foods should be reheated to 165°F within 2 hours for hot holding
 - b. Commercially processed food items should be reheated to 135°F within 2 hours for hot holding

Cleaning & Sanitizing

1. Cleaning vs. Sanitizing:
 - a. Cleaning removes debris
 - b. Sanitizing reduces pathogens to safe levels
2. 3-Compartment Sink Method
 - a. Wash with detergent in water at least 110°F
 - b. Rinse with clean water
 - c. Sanitize using appropriate chemical and concentration
3. Sanitizer Types
 - a. Chlorine
 - i. Concentration: 50-200 ppm
 - ii. Contact time 1 minute
 - b. Quaternary Ammonia (Quat)
 - i. Concentration: 200-400 ppm
 - ii. Contact time 1 minute
 - c. Iodine
 - i. Concentration: 12.5-50 ppm
 - ii. Contact time 30 seconds
4. Cleaning Schedules
 - a. Surfaces in constant use must be cleaned and sanitized every 4 hours

Equipment & Facility

1. Design Requirements:
 - a. Smooth
 - b. Non-absorbent
 - c. Easily cleanable surfaces
 - d. Proper lighting and ventilation.
2. Handwashing Sinks must be:
 - a. Accessible
 - b. Stocked with soap, hand drying provision, and signage informed employees to wash hands
 - c. Hot and cold water under pressure
3. Equipment Maintenance:
 - a. Calibrate thermometers
 - b. Repair damaged equipment
 - c. Maintain clean food contact surfaces
4. Thermometer:
 - a. Air thermometers should be used inside of cold/hot holding units
 - i. Calibration +/- 3°F
 - b. Probe thermometers should be used to check internal temperatures of foods
 - i. Calibration +/-2°F
 - c. Thermometers can be calibrated with two methods:
 - i. Cold method – place thermometer ice water (50% ice and 50% water), it should read -32°F
 - ii. Hot method – place thermometer in boiling water, it should read 212°F

Foodborne Illness Prevention

1. There are 3 types of food contaminants:
 - a. Physical
 - i. Physical objects or matter in food that shouldn't be there (glass, metal, wood, etc.)
 - b. Chemical
 - i. Unwanted chemicals in food (cleaning solutions, pesticides, food additives, etc.)
 - c. Biological
 - i. Microorganisms like bacteria, viruses, parasites, or toxins in food (Salmonella, Norovirus, mycotoxins, etc.)
2. Pathogens need specific conditions in order to grow. Understanding these factors helps in controlling bacterial growth and preventing foodborne illnesses. You can easily remember with the acronym FAT TOM:
 - a. Food
 - b. Acidity
 - c. Time
 - d. Temperature
 - e. Oxygen
 - f. Moisture
3. High-Risk Populations
 - a. Children
 - b. Elderly
 - c. Pregnant women
 - d. Immunocompromised
4. Outbreak Reporting
 - a. Two or more people with the same illness from the same food; report to the local health authority

Employee Health & Hygiene

1. Handwashing
 - a. Wash hands for at least 20 seconds with soap and warm water, especially after using the restroom, handling raw food, or touching the face/body.
 - b. Exclusions & Restrictions
 - i. Employees with vomiting, diarrhea, jaundice, sore throat with fever, or infected wounds must be excluded or restricted based on symptoms.
2. Reporting Illness
 - a. Employees must notify the Person in Charge (PIC) if they exhibit symptoms or are diagnosed with specific foodborne illnesses.
 - b. If diagnosed with the following foodborne illnesses it must be reported to the local health authority:
 - i. Hepatitis A
 - ii. E. Coli
 - iii. Norovirus
 - iv. Shigella
 - v. Salmonella
3. Personal Hygiene
 - a. Keep fingernails trimmed and clean
 - b. Avoid wearing jewelry (except plain bands)
 - c. Wear clean uniforms or aprons

Food Source, Receiving, & Storage

1. Receiving Guidelines
 - a. Cold TCS foods $\leq 41^{\circ}\text{F}$
 - b. Hot TCS foods $\geq 135^{\circ}\text{F}$
 - c. Frozen foods solid with no signs of thawing (ice crystals)
 - d. Dairy should be Grade A and pasteurized
2. Storage Order in Cooler (Top to Bottom)
 - a. Ready-to-eat foods
 - b. Seafood, fish, whole cuts of beef/pork
 - c. Ground meats
 - d. Poultry
3. Labeling
 - a. Mark food with proper date and discard TCS foods after 7 days if held at 41°F or lower
4. FIFO (First In, First Out)
 - a. Use older stock first to prevent spoilage.
5. Approved source:
 - a. All food items must be from an approved source
 - i. Items made in a home kitchen are prohibited from being sold in a retail food establishment

Food Preparation

1. Avoid Bare-Hand Contact
 - a. Use gloves, utensils, or deli paper for ready-to-eat foods.
2. Thawing Methods
 - a. Under refrigeration
 - b. Under cold running water
 - c. In microwave (if cooked immediately)
 - d. As part of the cooking process.
3. Minimize Time in Danger Zone
 - a. Prep in small batches and return to cold holding quickly.

Cross-contamination & Allergen Control

1. Preventing Cross-contamination
 - a. Store raw meats below ready-to-eat foods
 - b. Use separate cutting boards and utensils for raw and cooked foods
2. Allergen Awareness:
 - a. Prevent cross-contact and train staff to communicate allergen information.
 - b. Consumers shall be notified of the 9 major allergens:
 - i. Milk
 - ii. Eggs
 - iii. Fish
 - iv. Shellfish
 - v. Tree nuts
 - vi. Peanuts
 - vii. Wheat
 - viii. Soy
 - ix. Sesame

Shellstock & Seafood Safety

1. Shellstock Tags
 - a. Must be retained for 90 days after the last item is served/sold
2. Freezing for Parasite Destruction
 - a. Required for certain raw or undercooked fish
3. Smell and Appearance
 - a. Fresh seafood should have no strong odors and should be firm with clear eyes.

Active Managerial Control

1. Definition
 - a. Proactively identifying and managing food safety risks by the Person in Charge (PIC).
2. Strategies
 - a. Training employees
 - b. Monitoring critical points
 - c. Taking corrective actions
3. Documentation
 - a. Maintain logs for cleaning
 - b. Temperatures
 - c. Corrective actions

Environmental Controls

1. Pest Control
 - a. Use IPM (Integrated Pest Management)
 - b. Keep exterior doors closed
 - c. Seal gaps
 - d. Store food at least 6 inches off the floor
2. Garbage Management
 - a. Keep trash areas clean and containers covered
3. Water Supply
 - a. Must be potable and protected from cross-connections or backflow
 - i. Vacuum breaker - Prevent back siphonage
 - ii. Airgap - Must be at least 1 inch or twice faucet diameter
4. Ventilation
 - a. Prevents buildup of heat, smoke, and grease; must be cleaned regularly

Food Safety Management Systems

1. **HACCP – Hazard Analysis and Critical Control Points**
 - a. A systematic, preventive approach to food safety. It focuses on identifying, evaluating, and controlling hazards that could potentially make food unsafe throughout the entire food production process, from raw materials to the finished product.
2. HACCP Principles
 - a. Conduct hazard analysis
 - b. Identify Critical Control Points
 - c. Establish limits
 - d. Monitor Critical Control Points

- e. Take corrective actions
 - f. Verify
 - g. Record
3. HACCP plan is required when there are reasonably foreseeable hazards in your food processing or handling that need to be controlled to ensure product safety.
- 4. Variances**
- a. A formal, written document issued by the regulatory authority that allows a food facility to deviate from specific provisions of the food safety code. It grants permission to use alternative procedures or methods that achieve an equivalent or higher level of food safety.
5. When is a Variance Required?
- a. Use of non-traditional food preparation methods, such as:
 - i. Smoking or curing food for preservation rather than flavor
 - ii. Using additives or processes to render food non-TCS (Time/Temperature Control for Safety)
 - iii. Packaging methods like reduced oxygen packaging (ROP) that require special controls
 - iv. Sprouting seeds or beans
 - v. Offering raw or undercooked animal foods for consumer preparation (e.g., sushi, steak tartare)
6. Obtaining a Variance:
- a. The food establishment must apply to the local health department or regulatory agency.
 - b. A detailed description of the alternative procedure or process must be provided.
 - c. The application is reviewed for food safety risks and compliance.
7. Approval Requirements:
- a. The variance must be approved in writing by the regulatory authority before the alternative method is implemented.
 - b. Conditions or additional requirements may be attached to the approval to ensure safety.
8. Usage and Compliance:
- a. Food facilities operating under a variance must strictly follow the conditions set forth in the approval.
 - b. The regulatory authority may conduct additional inspections or require documentation to verify compliance.
 - c. Failure to comply with the variance conditions can result in revocation of the variance or enforcement actions.
- 9. Other Systems**
- a. Standard Operating Procedures (SOPs)
 - b. FDA Food Code compliance plans.

Legal & Regulatory Compliance

1. FDA Food Code
 - a. National standard used by most health departments.
2. Inspections
 - a. Conducted by local health agencies; PIC must be present and provide requested documents.
3. Violations
 - a. Can result in corrective actions, citations, or closures.
4. Permits & Licenses
 - a. Must be valid and visible; understand renewal and inspection requirements.
5. Initial & Ongoing
 - a. Train staff on food safety policies during onboarding and regularly afterward.
6. Documentation

- a. Maintain records of training dates, topics, and attendees.
- 7. Refresher Training
 - a. Required when procedures or menu items change or after food safety incidents