FOOD SCIENCE & HYGIENE

Chapter 6….

Hazard

Analysis

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Point

Hazards

- Biological, chemical, or physical agents that may cause illness or injury if not controlled throughout the flow of food

FLOW OF FOOD

Purchasing, Receiving, Storing, Preparing, Cooking, Holding, Cooling, Reheating, Serving.

Hazard analysis

- The process of identifying and evaluating potential hazards associated with foods in order to decide which foods must be addressed in a HACCP plan

Control Point

- Any step in the flow of food where a
  - Physical hazard

  - chemical hazard

  - biological hazard

- can be controlled!

Critical Control Point

- The last step where you can intervene to prevent, control, or eliminate the growth of microorganisms before the food is served to customers

HACCP system

- Identify the foods and procedures that are most likely to cause food-born illness
- Develop procedures that will reduce the risk of a food-born illness outbreak
- Monitor procedures to keep food safe
- Verify that the food you serve is consistently safe

HACCP prerequisites

- SOPs (Standard Operating Procedures)
  - Proper personal hygiene
  - Proper facility design
  - Choosing good supplier
  - Proper cleaning and sanitation
  - Appropriate equipment maintenance

HACCP principle #1

- Hazard analysis
  - Identify potential food hazards
  - Determine where hazards can occur in the flow of food
  - Group foods by how they are processed
  - Identify your customers

Enrico's
Italian Dining

Appetizers:

Nachos Supreme
Crisp corn tortilla chips with our not-too-spicy ranchero sauce, topped with jack cheese, garden vegetables, and sour cream.

Grilled Vegetable Quesadilla
Our quesadilla filled with green peppers, red onion, zucchini, yellow squash, jack and cheddar cheese.Served with guacamole, sour cream, salsa, and garnished with honey mustard and BBQ sauce.

Specialties of the house:

CHICKEN BREAST alla PARMAGIANA
Boneless, skinless breast of chicken seasoned with herbs, lightly breaded & pan-fried. Baked with three cheeses & herb marinara sauce.

ENRICO S PEPPER STEAK
Beef tenderloin medallions sauteed in butter with fresh mushrooms, sweet bell peppers, and onions.

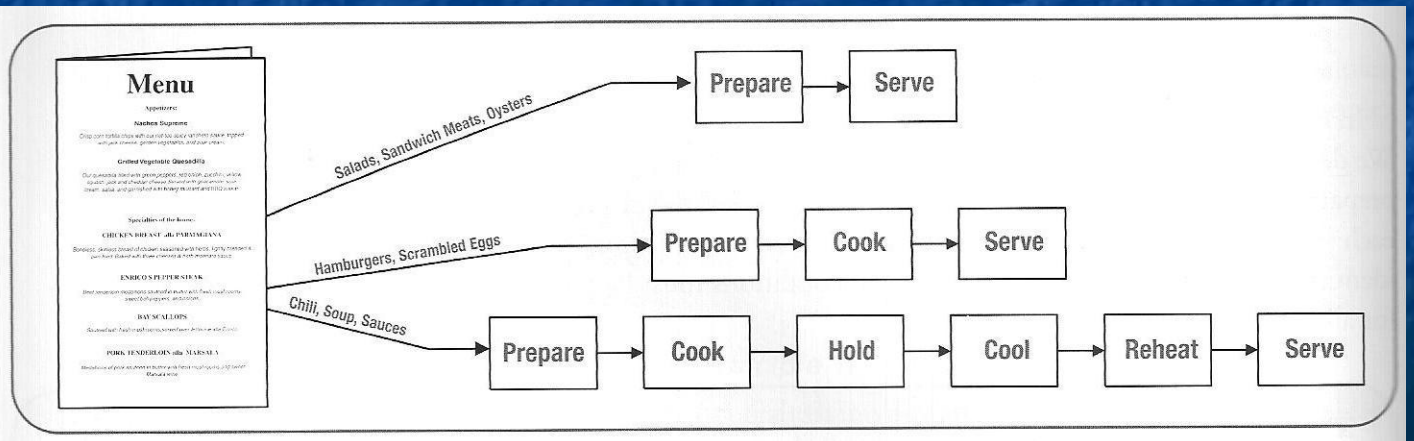
BAY SCALLOPS
Sauteed with fresh mushrooms.served over fettucine alla Enrico.

PORK TENDERLOIN alla MARSALA
Medallions of pork sauteed in butter with fresh mushrooms and sweet Marsala wine.

Potentially Hazardous Foods List

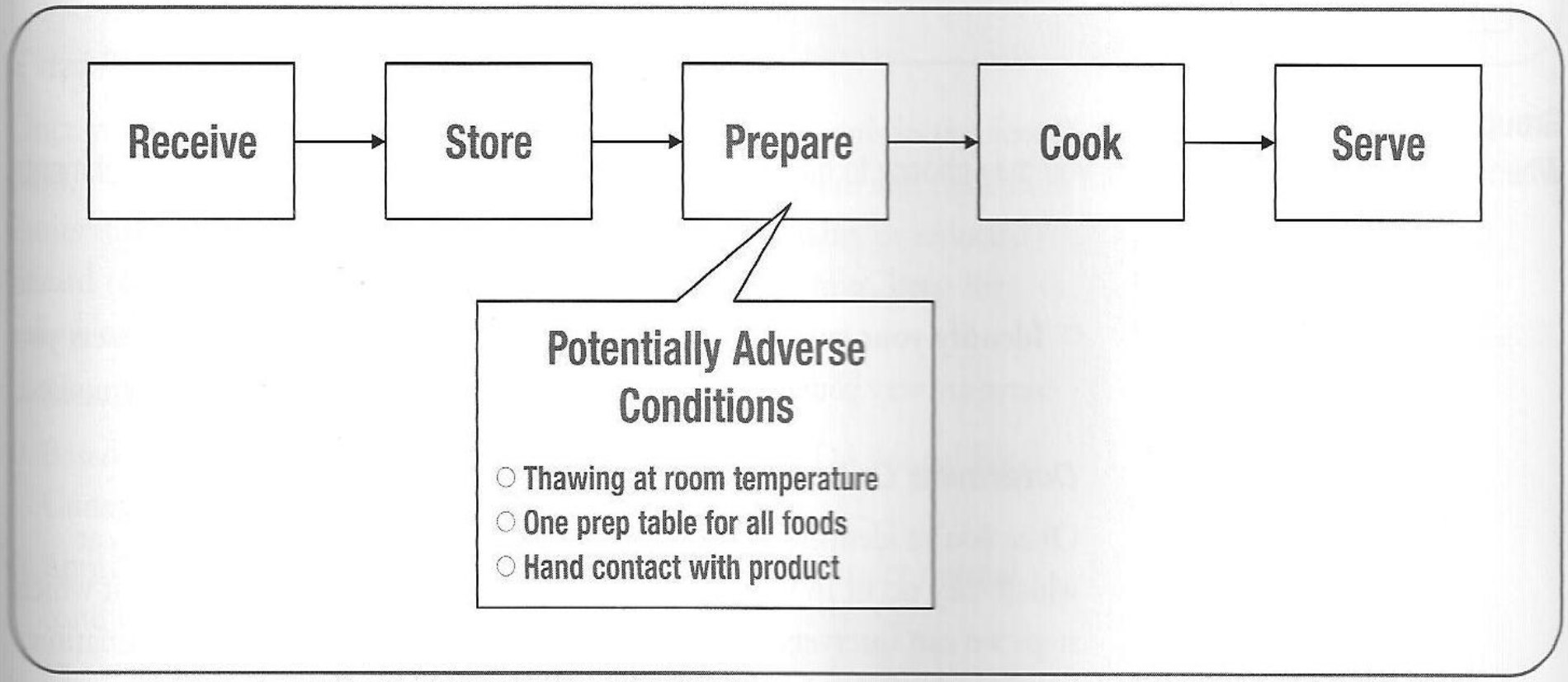
- Cheese
- Sour Cream
- Guacamole
- Chicken
- Beef
- Bay Scallops
- Pork

Identifying Potentially Hazardous Foods on a Menu



Grouping Foods by Processes

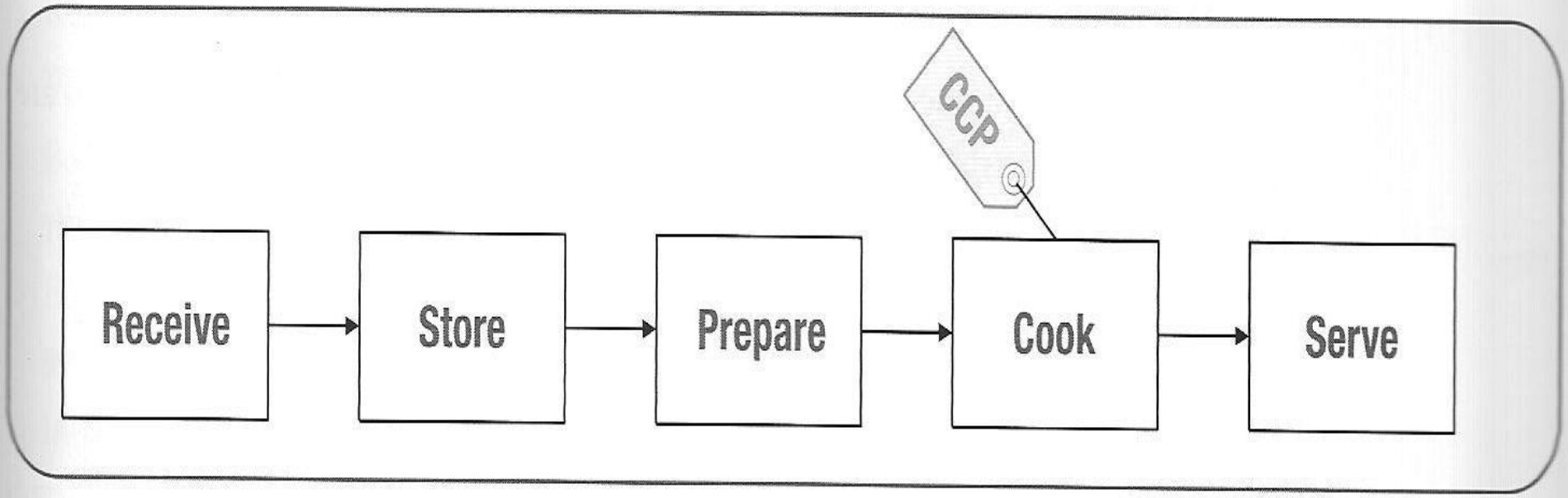
When developing your HACCP plan, you may choose to group foods by how they are processed in your establishment.



Determining the Steps in the Flow of Chicken Through an Establishment

HACCP principle #2

- Determine Critical Control Points
  - Find any step in the flow of food where a hazard can be controlled: Control Point
  - Assess whether a Control Point is Critical:
    - is it the last step you can intervene before the food is served to the customer?
    - If yes, then it is a Critical Control Point

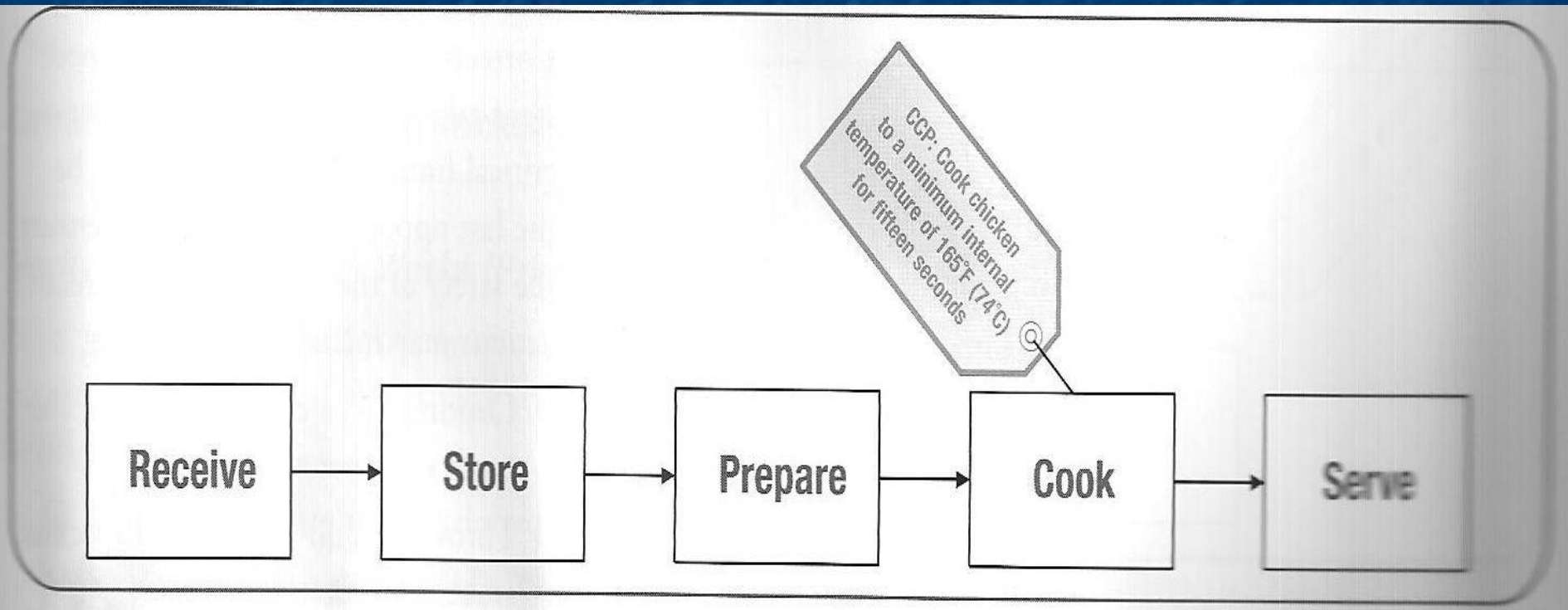


Identifying Critical Control Points in the Flow of Chicken

Since cooking is the last step where biological hazards can be prevented, controlled, or eliminated for the chicken in this establishment, this step is a Critical Control Point (CCP).

HACCP principle #3

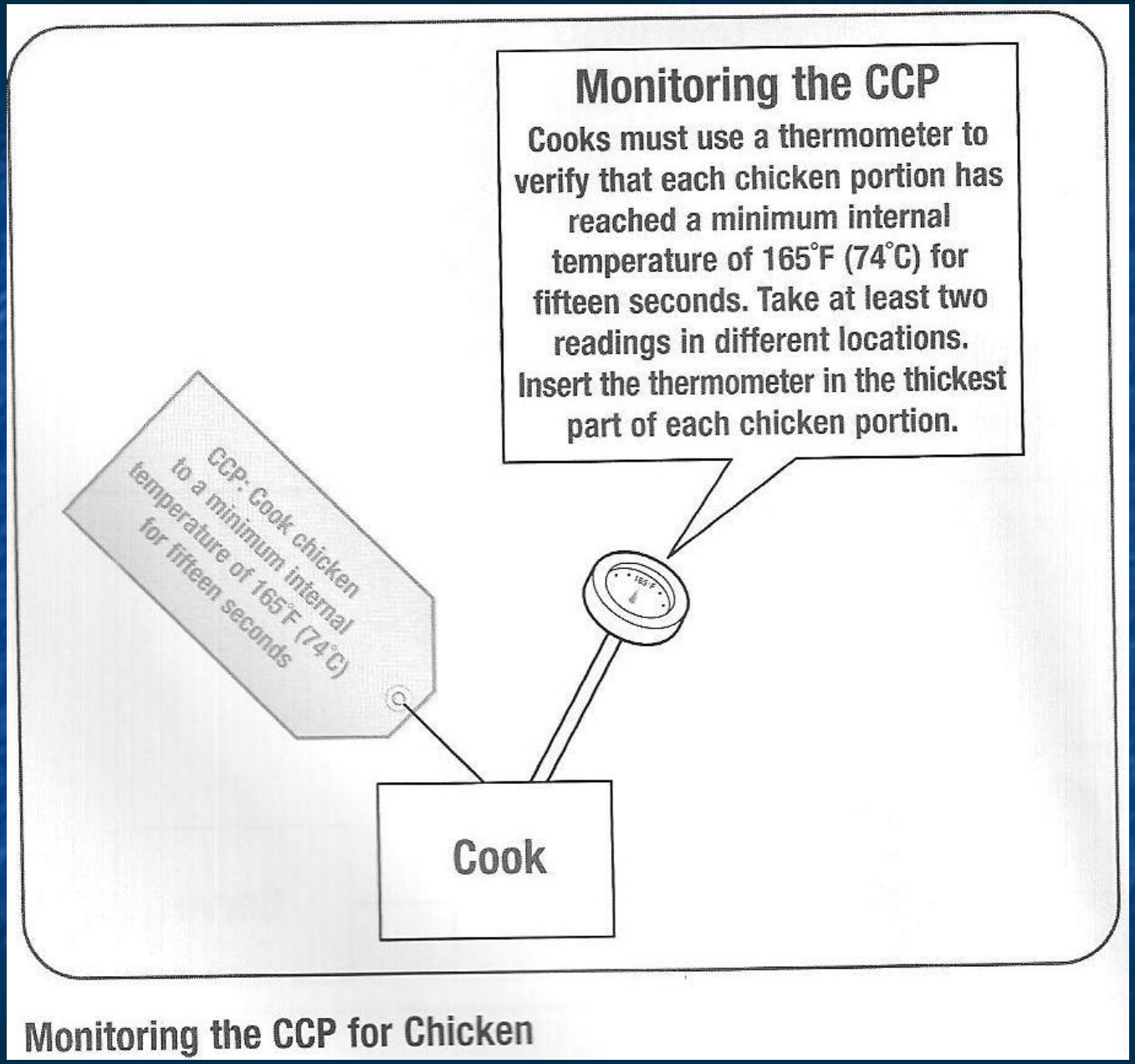
- Establish Critical Limits
  - The minimum and maximum limits that the CCP must meet in order to prevent, eliminate, or reduce a hazard to an acceptable limit. The limit must be:
    - Measurable (time-temperature)
    - Based on scientific data & food regulations
    - Appropriate for the food
    - Specific to your establishment



Establishing Critical Limits for Cooking Chicken

HACCP principle #4

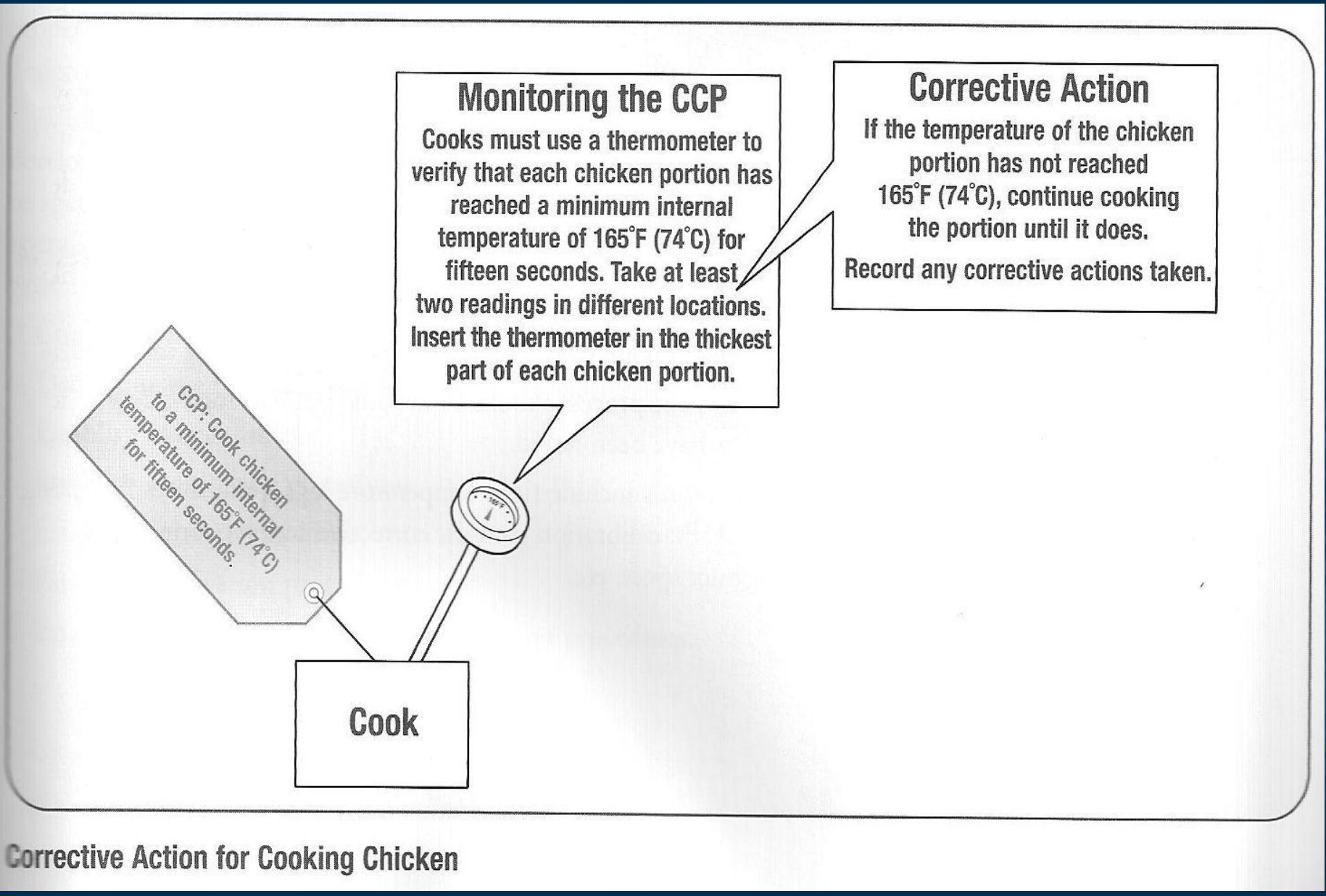
- Monitor Critical Control Points
  - Focus on each CCP and establish clear directions that will determine:
    - How to monitor the CCP
    - When & how often to monitor the CCP
    - Who will monitor the CCP
    - Equipment & materials needed to monitor the CCP



Monitoring the CCP for Chicken

HACCP principle #5

- Taking corrective actions
  - The steps taken when food doesn't meet a critical limit such as:
    - Continue to cook the food to the correct temperature
    - Throw the food away after a specific amount of time
    - Reject a shipment that is not in the right condition



Corrective Action for Cooking Chicken

HACCP principle #6

- Verify that the system works
  - CCP's and critical limits are correct
  - Monitoring alerts you to hazards
  - Corrective actions are adequate
  - Employees are following established procedures

HACCP principle #7

- Record keeping and Documentation
  - Record of how food is produced and kept safe
    - Time-temperature logs
    - Procedures for taking temperature
    - Calibration records,
    - Corrective actions
    - Monitoring schedules
    - Etc.