HACCP Principle 2: Identifying the Critical Control Points (CCPs)

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Introduction

• The HACCP team identifies Critical Control Points Based on the Hazard Analysis.
  • The Hazard is identified
  • Preventative measures are considered
Introduction

• There are several points in the food processing system where biological, physical or chemical hazards can be controlled.

• It is likely that only a few points are CCP's where loss of control would result in the production of a potentially unsafe food.
CCP’s vs CP’s

- Some HACCP teams like to think of Critical Control Points and Control Points.
- Other HACCP teams prefer to place Control Points as Good Manufacturing Practices or as Standard Operating Procedures.
Control Point

- A point, step, or procedure at which biological, physical, or chemical factors can be controlled.
  - Metal detection before grinding.
  - Recontamination after cooking.
Critical Control Point

- A point, step, or procedure at which control can be applied and a food safety hazard can be prevented, eliminated, or reduced to acceptable levels.
  - Metal detection after packaging
  - Pasteurizer
  - pH drop during fermentation
The CCP Decision Tree

- The HACCP team should utilize the decision tree to evaluate each point where significant hazards can be prevented, eliminated, or reduced to acceptable levels.
- NACMCF (1998) CCP decision tree
  - Fits with our hazard analysis
- The Codex (2003) CCP decision tree
Q1. Does this step involve a hazard of sufficient risk and severity to warrant its control?

Yes

No, Not a CCP. Stop

Q2. Does a preventive measure for the hazard exist at this step?

Yes

Q2a. Is control at this step necessary for safety?

No, Not a CCP. Stop

Yes. Modify step, process, or product

Q3. Is control at this step necessary to prevent, eliminate or reduce the risk of the hazard to consumers?

Yes, CCP

No, Not a CCP. Stop

No

No

Yes

No, Not a CCP. Stop

Yes. Modify step, process, or product
Q1. Do preventive control measures exist?

- No, Is control at this step necessary for safety?
  - Yes
    - Yes. Modify step, process, or product
  - No, Not a CCP. Stop
- Yes

Q2. Is the step specifically designed to eliminate or reduce the likely occurrence of a hazard to an acceptable level?

- No
- Yes

Q3. Could contamination with the identified hazard(s) occur in excess of acceptable level(s) or could it increase to an unacceptable level(s)?

- No
  - No, Not a CCP. Stop
- Yes

Q4. Will a subsequent step eliminate the identified hazard(s) or reduce its likely occurrence to an acceptable level?

- Yes, Not a CCP
- No
  - Critical Control Point
Important Considerations to using CCP Decision Tree

- Used after the hazard analysis
- Used at steps where a hazard that must be addressed in the HACCP plan has been identified.
- A process which does not have a "significant hazard" does not need a HACCP plan
Important Considerations to using CCP Decision Tree (cont.)

- Subsequent steps in the process may be more effective for controlling a hazard.
- More than one step may be involved in controlling a hazard.
- More than one hazard may be controlled by a specific preventative measure.
How many CCP’s should a HACCP Plan have?

- Depends on:
  - Food product produced
  - Ingredients used
  - Processing methods
  - Prerequisite programs implemented
- Too many CCP’s may burden the HACCP system
- Too few CCP’s may result in inadequate control of food safety hazards.
CCP’s and Regulations

- Product with no identified food safety hazards would not require a CCP and therefore a HACCP plan.
- USDA in preamble to regulations indicates they are not aware of any meat or poultry process that poses no likely food safety hazard.
- Canned products that fall under the HACCP regulations do not need CCP’s as they are covered by the canning regulations.
Summary

- Each processing operation determines the best location for CCP’s
- An identified hazard must be controlled with at least one CCP
- A CCP decision tree should be used
- The remaining HACCP principles are applied to the identified CCP’s