

# Food Safety HACCP Training

## Operators and Managers

### HACCP Operator vs. HACCP Manager

#### *HACCP Operators*

Operators need to know how to apply certain principles of HACCP in day-to-day factory floor applications to guarantee the food is safe to eat. This training addresses the basic application guidelines necessary for implementing a HACCP plan.

#### *HACCP Managers/Processors*

Processors need a way to control food safety hazards as the food is being handled or processed. They need to know how to write HACCP plans and implement HACCP in food processing, distribution, and preparation environments.

### Hazard Analysis Critical Control Point (HACCP) Operators

#### Requirement References:

- GMA HACCP Manual
- Rules of HACCP – A Compilation of HACCP-Related-Regulations in the United States
- 21 CFR 123 (FDA) Fish and Fishery Products
- 21 CFR 120 (FDA) Juice Products
- 9 CFR 417 (USDA/FSIS) Meat and Poultry Products
- 9 CFR 110 (FDA) Good Manufacturing Practices in Manufacturing, Packing, or Holding Human Food

#### Audience:

Food safety personnel who need to learn the principles of HACCP in order to successfully implement the HACCP plan to meet food safety and/or regulatory requirements.

#### Objectives:

- Identify the causes of foodborne illness
- Identify the key points of HACCP
- Explain the 7 HACCP principles
- Understand the importance of following prerequisite programs and standard operating procedures
- Identify critical control points
- Follow monitoring procedures to determine whether critical limits are being met
- Complete monitoring forms
- Follow corrective action procedures when a deviation from a critical limit occurs
- Follow recordkeeping and documentation procedures to verify the product was produced in accordance with the HACCP plan

### Operators Modules

#### HACCP Operators Lesson 1: Introduction to HACCP

##### Description:

This lesson provides an overview of the HACCP concept and the advantage of using HACCP over traditional testing methods to control food hazards. It also provides an overview of the origin of the HACCP system, the seven HACCP principles used to prevent, eliminate, or reduce food hazards to acceptable levels, and the basic application guidelines necessary for implementing a HACCP plan.

#### HACCP Operators Lesson 2: Prerequisites to HACCP

##### Description:

For a HACCP system to function effectively, it must be built on a strong foundation of prerequisite programs that set the stage for HACCP and provide on-going support. This lesson gives an overview of the purpose of prerequisite programs, their purpose, and how they relate to HACCP. It also gives an overview of the Sanitation Standard Operating Procedures, SSOPs, as they relate to HACCP requirements.

#### HACCP Operators Lesson 3: Biological Hazards and Controls

##### Description:

To understand a HACCP plan, it is necessary to have knowledge of the potential biological hazards. This lesson defines a pathogen and provides an overview of the types of biological hazards and the factors that contribute to foodborne disease outbreaks. It also gives an overview of the sources and controls for the most common foodborne pathogens that need to be addressed in a HACCP plan. In addition, it gives an overview of the potential control measures to reduce, eliminate, or prevent the growth of pathogens.

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### HACCP Operators Lesson 4: Chemical Hazards and Controls

**Description:** This lesson gives an overview of the common types of chemicals used in food processing. It also gives information about naturally occurring substances and intentionally added chemicals that are associated with foodborne illness. In addition, it gives an overview of the points and types of controls that should be included in a Chemical Control Program.

### HACCP Operators Lesson 5: Physical Hazards and Controls

**Description:** This lesson gives an overview of the sources and types of materials that can be physical hazards in foods and the regulations regarding physical hazards. It also gives an overview of controls to minimize the potential for physical hazards in foods.

### HACCP Operators Lesson 6: Initial and Preliminary Tasks

**Description:** To properly implement a HACCP plan, it helps to know how a plan is developed. This lesson briefly covers those tasks so operations personnel are aware of the tasks associated with the initial development of a HACCP plan.

### HACCP Operators Lesson 7: Hazard Analysis

**Description:** Hazard Analysis is the process used by the HACCP team to determine which potential hazards present a significant health risk to consumers. This lesson briefly describes a hazard analysis, so operations personnel are aware of how a HACCP plan is developed. The hazard analysis deals with the identification and evaluation of potential food safety hazards and the determination of appropriate control measures.

### HACCP Operators Lesson 8: Critical Control Points

**Description:** This lesson gives an overview of control measures previously identified to prevent, eliminate, or reduce food safety hazards and how they are evaluated to determine which will be recognized as critical control points, CCPs.

### HACCP Operators Lesson 9: Critical Limits

**Description:** This lesson give an overview of criteria established for setting critical limits and operating limits for control measures identified at critical control points. It also covers parameters that may be established to signify whether a CCP is "in" or "out" of control.

### HACCP Operators Lesson 10: Monitoring Critical Control Points

**Description:** Procedures must be established to monitor the CCPs to determine and document whether the critical limits are being met. At every CCP, a control measure is used to control an identified hazard. The control measure must operate within one or more established critical limits. This lesson covers monitoring procedures for determining if the process is operating within the critical limit parameters.

### HACCP Operators Lesson 11: Corrective Actions

**Description:** A deviation from a critical limit for a critical control point will result in an actual or a potential hazard to the consumer. When a deviation occurs, appropriate corrective action must be taken to address the problem. This lesson covers the definition and objective of corrective actions, the options and procedures for taking corrective actions, and recordkeeping and regulatory requirements for corrective actions.

### HACCP Operators Lesson 12: Verification Procedures

**Description:** Verification evaluates the day-to-day compliance of the activities at each CCP within the HACCP plan. Verification activities are designed to ensure that the control procedures used for prerequisite programs, CCPs, and the HACCP plan are functioning properly to control the hazards. This lesson focuses on activities that verify the HACCP system.

### HACCP Operators Lesson 13: Recordkeeping

**Description:** Accurate and complete recordkeeping and documentation are essential for a successful HACCP program. Records are the only way to provide evidence that the HACCP plan is being followed. In other words, if it isn't written down, it didn't happen. This lesson focuses on the types of records needed in a HACCP system and the recordkeeping procedures for documenting the HACCP plan.

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### Hazard Analysis Critical Control Point (HACCP) Managers

- Requirement References:**
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  - Rules of HACCP – A Compilation of HACCP-Related-Regulations in the United States
  - 21 CFR 123 (FDA) Fish and Fishery Products
  - 21 CFR 120 (FDA) Juice Products
  - 9 CFR 417 (USDA/FSIS) Meat and Poultry Products
  - 9 CFR 110 (FDA) Good Manufacturing Practices in Manufacturing, Packing, or Holding Human Food

**Audience:** Food safety personnel who need to learn and apply the principles of HACCP in plan development and implementation to meet food safety and/or regulatory requirements.

### Managers Modules

#### HACCP Lesson 1: Introduction to HACCP

**Description:** The Hazard Analysis and Critical Control Points system, or HACCP, focuses on preventing problems that could lead to foodborne illness or injury. HACCP is a management system that is required for meat and poultry products amenable to the US Department of Agriculture (USDA) inspection, plus seafood and juice products amenable to Food and Drug Administration (FDA) inspection. This lesson provides an overview of the HACCP concept and the advantages of using HACCP over traditional testing methods to control food hazards. It also provides an overview of the origin of the HACCP system, the seven HACCP principles used to develop an effective plan to prevent, eliminate, or reduce food hazards to acceptable levels, and the basic application guidelines necessary for implementing a HACCP plan.

- Objectives:**
- Identify the basic concept underlying HACCP and the advantages of using HACCP over traditional testing methods to control food hazards.
  - Identify the origin of HACCP and how it evolved as a food safety system.
  - Identify the seven HACCP principles used to develop an effective plan to prevent, eliminate, or reduce food hazards to acceptable levels.
  - Identify the basic application guidelines necessary for implementing a HACCP plan.

#### HACCP Lesson 2: Prerequisites to HACCP

**Description:** For a HACCP system to function effectively, it must be built on a strong foundation of prerequisite programs that set the stage for HACCP and provide on-going support. This lesson gives an overview of the purpose of prerequisite programs, how they relate to HACCP, and how to determine if a procedure should be in a prerequisite program or a HACCP plan. It also gives an overview of the conditions and activities necessary for establishing prerequisite programs, and the Sanitation Standard Operating Procedures as they relate to HACCP requirements for seafood, juice, and meat and poultry processors.

- Objectives:**
- Identify the purpose of prerequisite programs, how they relate to HACCP, and how to determine if a procedure should be in a prerequisite program or part of a HACCP plan.
  - Identify the conditions and activities necessary for establishing prerequisite programs.
  - Identify the Sanitation Standard Operating Procedures as they relate to HACCP requirements for seafood, juice, and meat and poultry processors.

#### HACCP Lesson 3: Biological Hazards and Controls

**Description:** To perform a hazard analysis for the development of a HACCP plan, it is necessary to have knowledge of the potential biological hazards. This lesson provides an overview of the types of foodborne disease and how they are transmitted. It also gives an overview of the characteristics, sources, and controls for the most common foodborne pathogens that need to be addressed in a HACCP plan. In addition, it gives an overview of the potential control measures to reduce, eliminate, or prevent the growth of pathogens.

- Objectives:**
- Identify the types of biological hazards and foodborne disease, how they are transmitted, and the factors that contribute to foodborne disease outbreaks.
  - Identify the characteristics, sources, and controls for the most common foodborne pathogens that need to be addressed in a HACCP plan.
  - Identify the potential control measures to reduce, eliminate, or prevent the growth of foodborne pathogens.

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### HACCP Lesson 4: Chemical Hazards and Controls

#### Description:

To effectively conduct a hazard analysis, the HACCP team must have information and guidelines for identifying potential chemical hazards and for determining if they should be included in the HACCP plan. This lesson gives an overview of the common types of chemicals used in food processing and the laws and regulations regarding hazardous chemicals. It also gives information about naturally occurring substances and intentionally added chemicals that are associated with foodborne illness or injury. In addition, it gives an overview of the points and types of controls that should be included in a Chemical Control Program.

#### Objectives:

- Identify the common types of chemicals used in food processing and the laws and regulations regarding hazardous chemicals.
- Identify the naturally occurring substances that are associated with foodborne illness or injury.
- Identify the intentionally added chemicals that are associated with foodborne illness or injury.
- Identify the points and types of controls that should be included in a Chemical Control Program.

### HACCP Lesson 5: Physical Hazards and Controls

#### Description:

To effectively conduct a hazard analysis, the HACCP team must have information and guidelines for identifying potential physical hazards and for determining if they should be included in the HACCP plan. This lesson gives an overview of the sources and types of materials that can be physical hazards in foods and the regulations regarding physical hazards. It also gives an overview of controls to minimize the potential for physical hazards in food.

#### Objectives:

- Identify the sources and types of materials that can be physical hazards in foods and the regulations regarding physical hazards.
- Identify the types of controls to minimize the potential for physical hazards in food.

### HACCP Lesson 6: Initial and Preliminary Tasks

#### Description:

Several tasks must be completed before applying the seven HACCP principles to a specific product and process. Failure to properly address these tasks could lead to inadequate design, implementation, and management of the HACCP plan. This lesson covers the skills and responsibilities of the HACCP coordinator, the proper forms and tools needed to develop a HACCP plan, and the preliminary tasks that must be completed before developing the HACCP principles.

#### Objectives:

- Identify the skills and responsibilities of the HACCP coordinator and the proper forms and tools needed to develop a HACCP plan.
- Identify the preliminary tasks that must be completed before developing the HACCP principles.

### HACCP Lesson 7: Hazard Analysis

#### Description:

The Hazard Analysis, the first HACCP principle, is the process used by the HACCP team to determine which potential hazards present a significant health risk to consumers. This lesson focuses on the importance of conducting a thorough hazard analysis, what is defined as a food safety hazard and a hazard analysis, how to identify and evaluate potential food safety hazards, examples of appropriate control measures, and the regulatory requirements for conducting a hazard analysis.

#### Objectives:

**At the completion of this training, the student will be able to:**

- Identify the importance of conducting a thorough hazard analysis.
- Define a food safety hazard and hazard analysis.
- Identify the steps necessary for identifying hazards.
- Identify the steps necessary for evaluating hazards.
- Identify examples of appropriate measures for controlling food safety hazards.
- Identify the regulatory requirements for conducting a hazard analysis.

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### HACCP Lesson 8: Critical Control Points

**Description:** After the Hazard Analysis, the HACCP team focuses on the second principle, “Determine Critical Control Points.” In this step, control measures previously identified to prevent, eliminate, or reduce food safety hazards will be evaluated to determine which will be recognized as Critical Control Points, CCPs.

- Objectives:**
- Identify how a control point differs from a critical control point.
  - Identify the purpose of a decision tree and the questions to ask when selecting CCPs.
  - Identify examples of CCP designation systems.
  - Identify the steps for determining CCPs.
  - Identify the regulatory requirements for CCPs.

### HACCP Lesson 9: Critical Limits

**Description:** After determining the critical control points, the HACCP team should focus on the third principle, “Establish Critical Limits.” In this step, criteria will be established for setting critical limits and operating limits for control measures identified at critical control points. Also, parameters will be established to signify whether a CCP is “in” or “out” of control.

- Objectives:**
- Define a critical limit and operating limit.
  - Identify the criteria for setting critical limits.
  - Identify the purpose and advantage of establishing operating limits.
  - Identify what signifies whether a critical control point is in or out of control.
  - Identify the steps for establishing critical limits.
  - Identify the regulatory considerations for critical limits.

### HACCP Lesson 10: Monitoring Critical Control Points

**Description:** After establishing critical limits for the CCPs, the HACCP team must focus on the fourth principle, Establish Monitoring Procedures. In this step, procedures must be established to monitor the CCPs to determine and document whether the critical limits are being met.

- Objectives:**
- Identify what will be monitored.
  - Identify the methods and equipment used for monitoring.
  - Identify how often monitoring should be conducted.
  - Identify who should perform the monitoring.
  - Identify the regulatory considerations for monitoring.

### HACCP Lesson 11: Corrective Actions

**Description:** After establishing the monitoring procedures, the HACCP team should focus on the fifth principle, “Establish Corrective Actions.” In this principle, appropriate corrective actions will be established that must be taken when a deviation from a critical limit occurs. This lesson covers the definition and objective of corrective actions, the options and procedures for taking corrective actions, and recordkeeping and regulatory requirements for corrective actions.

- Objectives:**
- Define corrective actions and identify the objectives.
  - Identify the options and procedures for taking corrective actions.
  - Identify the recordkeeping and regulatory requirements for corrective actions.

### HACCP Lesson 12: Verification Procedures

**Description:** After establishing corrective actions, the HACCP team should focus on the sixth principle, “Establish Verification Procedures.” This principle focuses on establishing activities that determine the validity of the HACCP plan and verify the system is operating according to the plan.

- Objectives:**
- Identify activities that determine the validity of the HACCP plan.
  - Identify activities that verify control measures are properly functioning at all CCPs.
  - Identify activities that verify the system is operating according to the HACCP plan.

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### **HACCP Lesson 13: Recordkeeping**

**Description:** After establishing verification procedures, the HACCP team should focus on the seventh principle, “Establish Recordkeeping and Documentation Procedures.” This principle ensures written evidence is available to trace the production history of a finished product and verify the product was produced in accordance with the HACCP plan.

- Objectives:**
- Identify the types of records needed in a HACCP system.
  - Identify recordkeeping procedures for documenting the HACCP plan.
  - Identify the requirements for record reviews and retention.

### **HACCP Lesson 14: Organizing and Managing HACCP Programs**

**Description:** After an establishment decides to use HACCP as the system for ensuring the safety of its products, the establishment should commit to making the HACCP program an integral part of their operations. This lesson provides requirements for organizing, implementing, and managing a HACCP plan and a HACCP program.

- Objectives:**
- Identify the requirements for organizing a HACCP program and strategies for developing a HACCP plan.
  - Identify the phases of HACCP plan implementation.
  - Identify the requirements for supporting and managing a HACCP program.

### **HACCP Lesson 15: HACCP and the Regulatory Agencies**

**Description:** Since 1997, the U.S. food regulatory agencies have begun to require the application of HACCP for individual segments of the food industry. This lesson provides a brief overview of the current regulatory environment for HACCP and the USDA/FSIS and FDA HACCP regulations.

- Objectives:**
- Identify the current regulatory environment for HACCP.
  - Identify the major regulatory requirements for USDA/FSIS and FDA HACCP.