National Registry of Food Safety Professionals Certified Food Safety HACCP Manager Content Outline

Job Description: A Certified Food Safety HACCP Manager is a professional who has the ability to develop, implement, and maintain a risk-based food safety system by applying HACCP principles to ensure a safe food supply.

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Task 5: Review deviations, non-conforming products, and consumer complaints for impact on HACCD system

for impact on HACCP system

Task 6: Conduct annual reviews and update as determined

Task 7: Implement corrective actions

Task 8: Implement record keeping

Domain I: Conducting preliminary activities

Task 1: Obtain management commitment

Knowledge of:

- Knowledge of regulatory requirements of various markets
- Basic knowledge of cost benefit analysis and return on investment
- Knowledge of typical customer requirements
- Basic understanding of food safety resource management
- Knowledge of characteristics of products
- Knowledge of the various HACCP schemes or standards

Ability:

- Verbal communication skills
- Written communication skills
- Ability to communicate regulatory and customer requirements
- Ability to identify resources required for HACCP plans (time, people, funding, etc.)

Task 2: Assemble the HACCP team

Knowledge of:

- Knowledge of types and roles of subject matter expertise
- Knowledge of operational procedures
- Knowledge of products and their ingredients
- Knowledge of customer requirements of the facility
- Understanding of organizational structures

Ability:

- Ability to determine the expertise requirements of the HACCP team
- Ability to delegate
- Leadership skills
- Verbal communication skills
- Written communication skills

Task 3: Identify regulatory and customer requirements

Knowledge of:

- Knowledge of applicable codes, laws, and regulations
- Knowledge of customer requirements
- Knowledge of food safety management system standards
- Knowledge of industry certifications
- Knowledge of internal policies and procedures

- Research skills
- Ability to compare and analyze regulations

Task 4: Identify existing prerequisite programs (PRPs)

Knowledge of:

- Basic knowledge of the different types of prerequisite programs applicable (GMPs, GRPs, GAPs, SOPs, SSOPs, etc.)
- Knowledge of the role of PRPs in the HACCP based food safety system

Ability:

Computer skills

Task 5: Identify product ingredients

Knowledge of:

- Knowledge of products and their ingredients
- Knowledge of which ingredients present a hazard (allergens, pathogens, etc.)
- Knowledge of packaging
- Knowledge of product attributes (storage, shelf life, etc.)
- Knowledge of labeling requirements
- Knowledge of basic science

Task 6: Identify intended use of the product

Knowledge of:

- Knowledge of customer base
- Knowledge of high risk consumers
- Knowledge of unintended or misuse of product
- Understanding of further processing of product
- Knowledge of transportation of product
- Knowledge of supply chain
- Knowledge of labeling requirements

Ability:

- Evaluation skills
- Research skills
- Ability to think outside the box

Task 7: Identify characteristics of end product

- Knowledge of product name
- Knowledge of characteristics of products
- Knowledge of shelf life
- Knowledge of whether the product is PHF/TCS
- Knowledge of packaging requirements
- Knowledge of storage requirements
- Knowledge of where product will be sold (country, schools, health care facilities, etc.)

- Knowledge of whether product is minimally processed
- Knowledge of if product is ready to eat
- Knowledge of product size, shape, color and freshness
- Knowledge of standards of identity (regulatory)

Ability:

- Reading comprehension skills
- Ability to interpret regulations
- Detail oriented

Task 8: Create flow diagrams

Knowledge of:

- Knowledge of steps in the process to create flow diagrams
- Knowledge of the role of the diagram in the hazard analysis
- Knowledge of ingredients used (WIP Work in Progress)
- Knowledge of maintenance of equipment
- Knowledge of packaging materials
- Knowledge of rework used in the product

Ability:

• Ability to diagram the flow of a product

Task 9: Verify flow diagrams

Knowledge of:

- Knowledge of process steps presented in the flow diagrams
- Knowledge of ingredients used as shown in the flow diagrams
- Knowledge of equipment used as shown in the flow diagrams
- Knowledge of packaging materials used as shown in the flow diagrams
- Knowledge of any identified outputs of the process such as waste, by products etc.
- Knowledge of an outsourced activities
- Knowledge of any process aid (water, enzymes, steam etc.) required by the process
- Knowledge of rework used in the product as shown in the flow diagrams
- Knowledge of the types of verification procedures

Ability:

 Ability to verify the flow diagram is scientifically-sound, actually reflects the process, and implements control measures that will prevent, eliminate or reduce food safety hazards to acceptable levels.

Task 10: Describe Process Steps

Knowledge of:

- Knowledge of requirements at each processing step
- Knowledge of processing equipment
- Knowledge of product schedules

Ability:

• Ability to understand the logic of a flow diagram

Task 11: Identify unique and similar food processes

Knowledge of:

- Knowledge of the different types of food processing
- Knowledge of dealing with other interested parties (PETA, etc.)
- Understanding of products that may be grouped for purposes of hazard analysis
- Understanding that there may be different processes for the same products
- Knowledge of any specific industry and/or customer requirements

Ability:

- Ability to recognize similarities in the processing of different foods
- Ability to recognize similar hazards and their controls

Task 12: Describe existing control methods

Knowledge of:

- Knowledge of types of controls used to ensure food safety
- Knowledge of the differences between critical control points and control points
- Knowledge of cost benefit analysis

Ability:

• Ability to identify strengths and weaknesses of current control methods

Domain 2: Conducting a hazard analysis

Task 1: Selecting a method for conducting hazard analysis

Knowledge of:

- Knowledge of the methods available for conducting a hazard analysis (CODEX HACCP, ISO 22000, NACMCF, etc.)
- Knowledge of the requirements of the standard or scheme to be used
- Knowledge of the product/process of the facility
- Knowledge of the HACCP process

Ability:

• Ability to select from the various methodologies for conducting a hazard analysis

Task 2: Identify existing information (hazard guides and other available information)

Knowledge of:

- Knowledge of the types of existing information that may be available (hazard guides, past inspection reports, commodity information, existing case studies and generic models of processes or products being produced, etc.)
- Basic understanding of the types of codes, laws, and regulations associated with products and/or processes
- Knowledge of the impact of codes, laws, and regulations on hazard analysis
- Knowledge of known hazards

Ability:

- Ability to research existing information
- Ability to analyze existing information
- Ability to identify which regulatory requirements apply for particular products
- Ability to identify which competent authorities (regulatory agencies) have oversight

Task 3: Identify potential hazards

Knowledge of:

• Knowledge of typical hazards (physical, chemical [allergens], biological, and radiological)

Ability:

- Ability to research hazards associated with specific products and processes
- Ability to identify hazards associated with specific products and processes
- Ability to identify outbreaks and recalls

Task 4: Identify likelihood of hazard occurring

Knowledge of:

- Knowledge of operation prerequisite programs
- Knowledge of how to perform a risk assessment
- Knowledge of systematic preventive controls

Ability:

- Ability to identify activities that occur in each step in the process
- Ability to determine likelihood of a hazard occurring

Task 5: Identify causes of hazards

- Knowledge of causes (microbiological, chemical, physical, etc.)
- Knowledge of basic microbiology (survival, growth, and destruction)
- Knowledge of types of chemical hazards associated with product, processes, flow and facilities (e.g. allergens)
- Knowledge of radiological hazards associated with food (e.g. environmental radiation exposure, etc.)

- Knowledge of types of physical hazards associated with product, processes, flow, and facilities (e.g. metal fragments, etc.)
- Knowledge of types of biological hazards associated with product, processes, flow and facilities (e.g. pathogens)

Ability:

- Ability to apply information obtained from data collection and research during preliminary activities
- Ability to identify sources (storage, transport, packaging, etc.)
- Ability to read and interpret a inspection regulatory report
- Ability to assess facility and equipment design and its impact on products and processes

Task 6: Determine severity of illness or injury caused by the hazard **Knowledge of:**

- Knowledge of risk-based assessment (e.g. decision tree and risk-based models)
- Knowledge of illness and injuries associated with food

Ability:

- Ability to determine severity of illness or injury due to the hazard
- Ability to analyze probability and severity of hazard
- Apply this knowledge to applicable products and processes

Task 7: Select control measures

Knowledge of:

- Knowledge of prerequisite food safety programs
- Knowledge of CCPs
- Knowledge of hazard analysis processes
- Knowledge of operational PRPs
- Knowledge of how hazards are controlled
- Knowledge of the effectiveness of controls
- Knowledge of monitoring systems or techniques
- Knowledge of the requirements of the competent authority, scheme or standard

Ability:

- Ability to assess the application of control measures
- Ability to assess the point of application
- Ability to monitor the control measure
- Analytical skills

Task 8: Determine Prerequisite programs needed to control hazards Knowledge of:

• Knowledge of types of prerequisites (supplier quality assurance, sanitation [cleaning and sanitizing], allergen control, pest control, good laboratory practices, compliance, recalls, and incidences, food defense and bioterrorism, preventive

- maintenance, and quality management systems, etc.)
- Knowledge of mandated and non-mandated prerequisite programs
- Knowledge that hazard analysis may generate CCPs and hazards not covered by a CCP must be controlled by prerequisite programs

Task 9: Identify critical control points

Knowledge of:

• Knowledge of control points and CCPs

Ability:

• Ability to identify critical control points

Task 10: Update preliminary HACCP system information at the completion of the hazard analysis

Knowledge of:

• Knowledge of the need to update preliminary information

Ability:

• Ability to recognize needed changes to the system

Domain 3: Establishing detailed control measures

Task 1: Establish prerequisite programs

Knowledge of:

- Knowledge of prerequisite programs(supplier quality assurance, sanitation [cleaning and sanitizing], allergen control, pest control, good laboratory practices, compliance, recalls, incidences, food defense and bioterrorism, preventive maintenance, and quality management systems, etc.)
- Knowledge of mandated prerequisite programs
- Knowledge of the content of prerequisite program documentation (e.g. work instructions, records, policies, procedures, specifications, materials, tools, supervision and oversight, etc.)

Ability:

• Ability to create documentation of a prerequisite program

Task 2: Establish the operational prerequisite programs

Knowledge of:

- Knowledge of the differences between a generic and an operational prerequisite program (specific control measure for a specific hazard that is not a CCP)
- Knowledge of the content of operational prerequisite program documentation (e.g. work instructions, records, policies, procedures, specifications, materials, tools, supervision and oversight, etc.)

Ability:

• Ability to create documentation of an operational prerequisite program

Task 3: Establish critical limits

Knowledge of:

- Knowledge of equipment capability of meeting critical limits
- Knowledge of parameters to control the hazard
- Knowledge of science associated with controlling identified hazards
- Knowledge that critical limits must be quantitatively measurable

Ability:

- Ability to research and identify appropriate critical limit values
- Ability to determine effects of critical limits on products or processes
- Ability to identify what parameter will be measured
- Analyze the importance of the data

Task 4: Establish a monitoring HACCP system

Knowledge of:

- Knowledge of types of monitoring equipment
- Knowledge of types of monitoring procedures
- Knowledge of monitoring documentation requirements

Ability:

- Ability to develop monitoring procedures
- Ability to develop monitoring documents

Task 5: Calibrate monitoring equipment

Knowledge of:

- Knowledge that calibration of measuring equipment is necessary to ensure control
- Knowledge that calibration of monitoring equipment requires record keeping
- Knowledge that there may be regulatory requirements for certain calibration
 procedures

Ability:

- Ability to document procedures for equipment monitoring
- Ability to create a calibration schedule

Task 6: Monitor critical control points

Knowledge of:

- Knowledge of types of monitoring equipment
- Knowledge of types of monitoring procedures
- Knowledge of monitoring documentation requirements
- Knowledge of the role that frequency of monitoring plays in controlling a CCP
- Knowledge that values outside of critical limits are deviations (non-conforming product)

Ability:

• Follow directions

• Ability to create monitoring procedures and documents

Task 7: Establish a corrective action plan

Knowledge of:

- Knowledge that corrections and corrective actions should be applied as early in the food process as possible
- Knowledge that all CCP deviations require corrective actions
- Knowledge that corrections and corrective actions should be predetermined, documented and used to prevent product hazards
- Knowledge that adulterated (non-conforming) food products may not be sold
- Knowledge of the definitions of corrections and corrective actions
- Knowledge that corrections and corrective actions are applicable to more than CCPs

Ability:

- Ability to determine the effect of control measures on products or procedures
- Ability to conduct a root cause analysis
- Ability to evaluate products affected by the deviations
- Ability to gauge the effectiveness of the corrective actions
- Ability to assign responsibility for activities

Task 8: Conduct initial validation of CCP and critical limits

Knowledge of:

• Knowledge of different types of validation (e.g. regulatory guides, pilot studies, acceptable scientific evidence, mathematical modeling, outside agencies, etc.)

Ability:

- Ability to evaluate scientific and technical information to determine if the selected measure are capable of achieving the intended results
- Ability to document findings
- Ability to interpret results
- Ability to make adjustments
- Ability to approve or disapprove based on validation

Domain 4: Conducting Verification Activities

Task 1: Establish records and documents

- Knowledge of generic HACCP system documentation requirements
- Knowledge of recordkeeping and record retention requirements
- Knowledge of documentation requirements (e.g. controls, approvals, etc.)
- Knowledge of regulatory requirements regarding access to records and documents
- Knowledge of document confidentiality requirements

Ability:

- Written communication skills
- Ability to create a recordkeeping system
- Ability to maintain a recordkeeping system
- Organizational skills
- Attention to detail

Task 2: Review records for deviations and corrective actions

Knowledge of:

- Knowledge of critical limits
- Knowledge of corrective actions
- Knowledge of regulatory requirements for timing of record review
- Knowledge of record retention
- Knowledge of actions to be taken when deviations are identified
- Knowledge of CCP monitoring records review procedures

Ability:

- Ability to interpret data
- Ability to analyze data
- Ability to verify that records have been completed correctly
- Ability to identify deviations

Task 3: Establish verification procedures

Knowledge of:

- Knowledge of the types of verification procedures
- Knowledge of verification equipment
- Knowledge of the content of verification procedures
- Knowledge of regulatory requirements for verification
- Knowledge of verification models

Ability:

• Ability to create a verification plan

Task 4: Conduct verification planning and scheduling

Knowledge of:

- Knowledge of the difference between qualitative and quantitative verification
- Knowledge of the regulatory requirements associated with verification (minimums and maximums)

- Ability to interpret results
- Detail oriented
- Ability to evaluate cost benefits of types of verification

Task 5: Verify compliance with applicable codes and laws

Knowledge of:

- Knowledge of applicable codes, laws, and regulations
- Knowledge of online resources

Ability:

- Reading comprehension skills
- Research skills

Task 6: Manage sampling and testing activities

Knowledge of:

- Knowledge of when it is appropriate to sample
- Knowledge of issues associated with sampling (frequency, how to sample, chain of custody, sample handling, sample transportation, sample documentation, where to sample, etc.)
- Knowledge that sampling is used as a means of verification
- Knowledge of appropriate tests for products
- Knowledge of issues associated with testing (frequency, methodology, accreditation, recordkeeping, etc.)

Ability:

- Sampling skills
- Ability to interpret data
- Ability to determine testing needed

Task 7: Conduct periodic internal audits

Knowledge of:

- Knowledge of internal audit procedures
- Knowledge of standard, policies, procedures or regulations auditing against
- Knowledge of what constitute a non-conformance
- Knowledge of sampling (audit sampling)
- Knowledge of how to conduct a root cause analysis

- Ability to conduct an internal audit
- Ability to train individuals to conduct internal audits
- Ability to develop an audit plan
- Ability to interpret audit results
- Ability to investigate
- Ability to interview
- Ability to respond to a non-conformance
- Ability to identify a non-conformance
- Ability to conduct a root cause analysis

Task 8: Verify and validate initial HACCP plans

Knowledge of:

- Knowledge of HACCP-based food safety systems
- Knowledge of the differences between verification, validation and monitoring
- Knowledge of record keeping requirements to provide objective evidence
- Knowledge of food safety regulations
- Knowledge of the types of verification procedures
- Knowledge of verification equipment
- Knowledge of the content of verification procedures
- Knowledge of types of validation activities
- Knowledge of reliable sources for validation (i.e. scientific literature, universities, internet, etc.)

Ability:

- Ability to evaluate complex information
- Ability to evaluate individual verification and validation results
- Ability to use verification and validation results
- Ability to identify trends
- Ability to apply food safety regulations
- Ability to recognize a deviation or non-conformance
- Ability to identify corrective actions
- Ability to assess the appropriateness of corrective actions
- Ability to put into practice a food safety system based on risk

Task 9: Verify and validate prerequisite program

Knowledge of:

- Knowledge of prerequisite programs
- Knowledge of the types of verification procedures
- Knowledge of verification equipment
- Knowledge of the content of verification procedures
- Knowledge of types of validation activities
- Knowledge of reliable sources for validation (i.e. scientific literature, universities, internet, etc.)

- Ability to evaluate individual verification and validation results
- Ability to use verification and validation results
- Ability to identify trends
- Ability to apply food safety regulations
- Ability to recognize a deviation or non-conformance

Domain 5: Conduct operational implementation activities

Task 1: Manage personnel training

Knowledge of:

- Knowledge of training methods
- Knowledge of training needs
- Knowledge of competence requirements of trainees
- Knowledge of how to assess personnel skills and knowledge
- Knowledge that it is everyone's responsibility to communicate food safety
- Knowledge of how to and who to report food safety concerns to

Ability:

- Ability to determine objectives of training
- Ability to identify training personnel training requirements (informal and formal)
- Ability to motivate personnel
- Ability to operate teaching aids and equipment
- Written communication skills
- Verbal communication skills
- Presentation skills
- Observational skills
- Ability to manage training
- Leadership skills
- Ability to identify and obtain teaching aids and equipment
- Multicultural sensitivity
- Ability to recognize the language requirements of the audience
- Ability to instill a culture of food safety

Task 2: Maintain management commitment

Knowledge of:

- Knowledge of management review
- Knowledge of the inputs and outputs of management review
- Knowledge of what should be communicated to management and other stakeholders
- Knowledge of when to communicate to management and other stakeholders
- Knowledge of the cost benefits of the HACCP System implementation

- Verbal communication skills
- Written communication skills
- Ability to keep management apprised of activities
- Persuasive
- Ability to communicate HACCP system needs and benefits
- Persistence

Task 3: Manage the HACCP Team

Knowledge of:

- Knowledge of the roles and responsibilities of a HACCP team member in developing, implementing and maintaining a HACCP system
- Knowledge of what comprises an effective HACCP team
- Understanding that use of HACCP is a continuous process with regular activities
- Understanding that the HACCP system must be a proactive/preventive tool

Ability:

- Ability to assemble an effective HACCP team
- Leadership skills
- Team management skills
- Motivational skills
- Organizational skills
- Ability to prioritize time
- Flexibility
- Ability to identify team burnout
- Ability to delegate
- Ability to compliment and recognize others
- Ability to respond to personnel performance issues
- Listening skills
- Verbal communication skills
- Written communication skills
- Ability to identify training needs of the HACCP team

Task 4: Monitor emerging issues for impact on HACCP system

Knowledge of:

- Knowledge that emerging issues may require changes to the HACCP system
- Knowledge of an effective process to manage change as related to food safety

Ability:

- Ability to identify emerging issues
- Ability to assess the impact of emerging issues on the HACCP system
- Ability to train personnel on changes to the HACCP system based on emerging issues
- Ability to communicate to management and other responsible associates related to the effect of "changes" on food safety

Task 5: Review deviations, non-conforming products, and consumer complaints for impact on HACCP system

- Knowledge of a consumer complaint process
- Knowledge of evaluation procedures for non-conforming products
- Knowledge of company procedures regarding complaints and non-conforming products

- Knowledge of disposal methods for non-conforming products
- Knowledge of requirements to protect the safety of a product during a crisis **Ability:**
- Ability to evaluate the impact of complaints to the HACCP system
- Ability to evaluate the impact of deviations to the HACCP system
- Ability to evaluate the impact of non-conforming products to the HACCP system
- Ability to develop procedures for handling of non-conforming products
- Ability to implement procedures for handling non-conforming products
- Basic cost analysis skills
- Ability to assess a product to confirm its safety after a crisis (flood, tornados, fires, etc.)

Task 6: Conduct annual reviews and update as determined

Knowledge of:

- Knowledge of the inputs to an annual review
- Knowledge that annual reviews may be required for stakeholders
- Knowledge of review timelines
- Knowledge of regulatory requirements associated with reviews
- Knowledge of the outputs from an annual review
- Knowledge of the role of an annual review as an input to the management review

Ability:

• Ability to conduct an annual review

Task 7: Implement corrective actions

Knowledge of:

- Knowledge that all CCP deviations require corrective actions as early in the food
 process as possible
- Knowledge of corrective actions that should be used to prevent product hazards
- Knowledge of the definitions of corrections and corrective actions
- Knowledge that corrections and corrective actions are applicable to more than CCPs
- Knowledge of the requirements and records required to continue effectiveness of actions taken

- Ability to determine the effect of control measures on products or procedures
- Ability to conduct a root cause analysis
- Ability to evaluate products affected by the deviations
- Ability to gauge the effectiveness of the corrective actions
- Ability to assign responsibility for activities

Task 8: Implement record keeping

Knowledge of:

- Knowledge that records provide documentation that appropriate corrective actions were taken when critical limits were not met
- Knowledge that documentation of activities related to monitoring and corrective actions can provide proof that reasonable care was exercised in the operation of your establishment
- Knowledge that records may also show that on-going verification was conducted on the food safety management system
- Knowledge that a record keeping system can be simple but needs to be designed to meet the needs of the individual establishment
- Knowledge that the record keeping system can use existing paperwork such as delivery invoices and shellfish tags

- Ability to develop an effective record keeping system for the operation
- Ability to determine what documented information will assist in managing the control of food safety hazards
- Ability to determine record control requirements (i.e. retention time) to provide/demonstrate compliance to a specified requirement