

Certified Hazard Analysis and Critical Control Point (CHA) BOK Map 2012 – 2004

The Certified HACCP Auditor Body of Knowledge (BOK) has been updated to ensure that the most current state of practice is being tested in the examination. If you would like more information on how a BOK is updated, see a description of the process on page 4 in the [Certification Handbook](#) (PDF – 228 KB) on the www.asq.org website.

Part of the updating process includes conducting a job analysis survey to determine whether the topics in the previous BOK are still relevant to the current job role and to identify any new topics that have emerged since that previous BOK was developed. The results of the HACCP auditor job analysis survey showed that most of the topics that were in the 2004 BOK are still relevant to the job roles of HACCP auditors. All of the topics that were in the previous BOK met the survey validation threshold to be included in the new BOK. The tables below show the key changes between the two BOKs. The biggest change was to combine Auditor Competencies (formerly BOK VI) with Auditing Process, so they are both covered in new BOK area V, as indicated in BOK Map Tables.

The new Certified HACCP Auditor Body of Knowledge (CHA BOK) will be introduced at the March 3, 2012, administration. Both BOKs will be available online until the application deadline for the March 2012 administration, at which time the 2004 BOK will be removed.

General comments about ASQ Body of Knowledge updates

When the Body of Knowledge (BOK) is updated for an ASQ exam, the majority of the material covered in the BOK remains the same. There are very few programs that change dramatically over a 5-year period. One of the points that we make to all of the exam development committees is that ASQ Certification Exams need to reflect “the state of practice,” not “the state of the art.” This helps to keep the programs grounded in what people currently do, rather than being driven by the latest hot-topic improvement idea or trend. Typically, the biggest change in any updated BOK is in how the content is organized. When a new BOK is announced and posted on the ASQ website, we also include a “BOK Map” that highlights the changes between the two bodies of knowledge: old and new. The BOK map clearly identifies any new content that has been added to the exam, as well as any content that has been removed from the exam.

With regard to exam preparation materials, you should be able to use any of the reference books that are currently listed on the bibliography for the exam program. See [CHA references](#) on the www.asq.org website. These are the source materials that the exam development committees use to write questions and verify answers.

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2004 BOK	2012 BOK Details	New Elements in 2012 BOK
I	I. HACCP SYSTEM (25 Questions)	+3 Questions (was 22)
IC	<p>A. HACCP Terminology Define, describe, and apply basic terms related to a HACCP system: 1) deviation, 2) hazard condition, and 3) preventive maintenance, etc. Also 4) describe and use various elements of the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) and the <i>Codex Alimentarius</i>. (Apply)</p>	
ID	<p>B. Prerequisite Programs Define and describe 1) prerequisite programs as basic foundations for a HACCP system, including: good manufacturing practices (GMPs), standard sanitation and operating procedures (SSOPs), good agricultural practices (GAPs), good laboratory practices (GLPs), etc. Use other programs, such as 2) product traceability, 3) site security, and 4) allergen control, etc., to control operational and environmental conditions. (Analyze)</p>	
IE	<p>C. Preliminary tasks Identify and apply standard tasks for developing a HACCP system: 1) assemble and train the HACCP system; 2) describe the product and its distribution; 3) describe the intended use and end-user (consumer, patient, vulnerable group, etc.) of the product; 4) develop a product or process flow diagram; 5) verify the flow diagram. (Apply)</p>	
IA	<p>D. System Scope Define the scope of a HACCP system in terms of product-safety management, and describe how that scope affects its relationship to other systems, e.g., quality management, risk management, medical devices, and the Global Food Safety Initiative (GFSI). Distinguish between voluntary and regulatory HACCP programs, and describe the impact that non-safety regulatory requirements and customer specifications can have on the scope of a HACCP system. (Understand)</p>	
IB	<p>E. Management Responsibility Describe and determine management's commitment to HACCP and prerequisite programs. Use various methods to keep management apprised of current and emerging hazards and technologies, as well as standards and regulations, both domestic and international. (Apply)</p>	

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II & VI	II. HACCP PRINCIPLES (30 Questions)	+ 9 Questions (was 21)
2A	<p>A. Principle 1 – Hazard Analysis Conduct a hazard analysis by 1) identifying hazards and 2) evaluating them in terms of severity and likelihood of occurrence. Then 3) establish control measures for any hazards that are likely to occur. (Analyze)</p>	
2B	<p>B. Principle 2 –CCPs Define and use distinguish between 1) control points and 2) critical control points (CCPS) in various operations; then 3) develop and use CCP decision trees. (Analyze)</p>	
2C	<p>C. Principle 3 – Critical Limits Describe and distinguish between various types of limits, including 1) operational and process control limits and 2) specification limits; then 3) identify and use appropriate scientific sources related to chemical, microbiological, and physical limits, etc., as the basis for establishing critical limits. (Apply)</p>	
2D	<p>D. Principle 4 – Monitoring Establish monitoring procedures that include details about: 1) whether to use continuous or scheduled (intermittent) monitoring, 2) how frequently data should be gathered and by whom, and 3) what sampling and testing methods to use in support of these procedures. (Apply)</p>	
2E	<p>E. Principle 5 – Corrective Action Use the following steps to establish corrective active procedures. (Analyze)</p> <ol style="list-style-type: none"> 1) Identify the cause of the deviation. 2) Determine disposition of affected product. 3) Identify and document corrective action. 4) Implement corrective action and determine its effectiveness. 5) Reevaluate the HACCP plan after changes have been made. 	

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<p>2F & 6F2 →</p> <p>6F1 →</p>	<p>F. Principle 6 – Verification Use the following steps to establish verification procedures for ongoing assessment. (Analyze)</p> <ol style="list-style-type: none"> 1) Verify prerequisites and CCPs. 2) Review documents and records. 3) Review calibration processes and the system. 4) Test and analyze product samples. 5) Validate the HACCP system. 	
2G	<p>G. Principle 7 – Recordkeeping & Documentation Establish recordkeeping and documentation procedures that include: 1) documents and records that were used to develop the initial HACCP plan; 2) CCP monitoring records; 3) corrective actions taken in response to deviations, including the results of root cause analyses, verification activities, etc.; and 4) a formal document control system for maintaining these records. (Apply)</p>	
III & VI	III. IMPLEMENTATION AND MAINTENANCE OF A HACCP SYSTEM (20 Questions)	+ 6 Questions (was 14)
3A	<p>A. Implementation and Assessment Use the following steps to implement a HACCP project or system. (Apply)</p> <ol style="list-style-type: none"> 1) Conduct a pilot or initiate the system. 2) Conduct operational qualifications (critical control points, process control plans, etc.). 3) Assess training programs related to the HACCP project or system. 4) Evaluate the projects effectiveness in relation to its stated objectives. 5) Review the system requirements (regulatory, internal, etc.) to determine whether changes need to be made. 	
3B & 6F	<p>B. Validation and Reassessment Use the following steps to assess an ongoing HACCP project or system. (Evaluate)</p> <ol style="list-style-type: none"> 1) Reevaluate the stated system objectives in relation to the results of the pilot, system initiation, or product/process change. 2) Review the system requirements to verify that the project continues to meet those requirements. 	

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3C & 6F	<p>C. Verification and Maintenance Review the various HACCP system records, including 1) monitoring, 2) corrective action, 3) calibration, and 4) training. 5) Review record-keeping procedures, and 6) observe procedures being used when the system is in operation to confirm that they have been implemented properly. (Apply)</p>	
IV	IV. AUDITING FUNDAMENTALS (22 Questions)	+ 5 Questions (was 17)
4A	<p>A. Basic Terms and Concepts Define and differentiate terms related to quality and audits, such as product and process safety, quality assurance, quality control, objective evidence, findings, observations, and nonconformances. (Apply)</p>	
4B	<p>B. Purpose of Audits Explain how audits can be used to assess a wide variety of activities, including 1) organizational effectiveness, 2) system and process effectiveness, 3) performance measurement, 4) risk management, and 5) conformance to requirements. (Analyze)</p>	
4C	<p>C. Types of Audits Define and distinguish between various audit types, including 1) product, 2) process, 3) system, 4) 1st, 2nd, and 3rd party, and 5) compliance, etc. (Analyze)</p>	
4D	<p>D. Audit Criteria Define and distinguish between various audit criteria, such as standards, contracts, specifications, policies, and regulations. (Analyze)</p>	
4E	<p>E. Audit Participants Define and describe the roles and responsibilities of various audit participants, including 1) audit team members, 2) lead auditor, 3) client, 4) auditee, 5) technical or subject matter experts (SMEs). (Apply)</p>	

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4F	<p>F. Ethical, Legal, and Professional Issues</p> <p>1) Audit credibility Identify and apply ethical factors that influence audit credibility, such as auditor independence, objectivity, and qualifications. (Apply)</p> <p>2) Liability issues Identify potential legal and financial ramifications of improper auditor actions (e.g., carelessness and negligence) and the effects such actions can have on liability issues for all parties. (Apply)</p> <p>3) Professional conduct and responsibilities Define and apply the concepts of due diligence and due care with respect to confidentiality, conflict of interest, the discovery of illegal activities or unsafe conditions, etc. (Apply)</p>	
V, VI, & VII	V. AUDITING PROCESS AND AUDITOR COMPETENCIES (28 Questions)	–21 Questions Combined BOK areas from 2004 = 49
5A	<p>A. Audit Preparation and Planning</p> <p>1) Elements of audit planning Identify and implement audit planning steps, including verifying audit authority, determining the purpose, scope, type of audit, requirements to audit against, and resources necessary, such as size and number of audit teams. (Evaluate)</p> <p>2) Pre-audit documents Identify and analyze pre-audit documents such as criteria or reference materials, prior audit results, etc. (Evaluate)</p> <p>3) Auditing strategies Identify and use various tactical methods for conducting an audit, including forward and backward tracing, discovery, etc. (Apply)</p>	

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<p align="center">5B</p>	<p>B. Audit Performance</p> <ol style="list-style-type: none"> 1) Opening meeting Describe the elements of an opening meeting, including explaining to the auditee the purpose, scope, and elements of the audit to be conducted. (Apply) 2) Data collection and analysis Select and apply various data collection methods, such as interviewing people, observing work activities, taking physical measurements, examining paper and electronic documents, and analyze the results. (Evaluate) 3) Working papers Identify types of working papers, such as checklists, auditor notes, attendance rosters, etc., and determine their importance in providing evidence for an audit trail. (Evaluate) 4) Objective evidence Identify and differentiate various characteristics of objective evidence, such as observed, measured, verified, and documented. (Analyze) 5) Observations Evaluate the significance of observations in terms of positive, negative, chronic, isolated, and systemic. (Evaluate) 6) Nonconformances Classify nonconformances in terms of significance, severity, frequency, and level of risk. (Evaluate) 7) Audit process management Define and apply elements of managing an audit as it is being performed, including coordinating team and team member activities, reallocating resources, adjusting audit plans when necessary, and communicating with the auditee as needed. (Analyze) 8) Exit meeting Describe the elements of an exit meeting, including presenting audit observations and findings to the auditee and discussing post-audit activities, who will be responsible for performing them, and their deadlines. (Apply) 	

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<p align="center">6A</p> <p align="center">6B</p> <p align="center">6C</p> <p align="center">6D</p> <p align="center">6E</p>	<p>E. Auditor Competencies</p> <p>1) Characteristics Identify characteristics that make auditors effective, such as interpersonal skills, problem-solving skills, close attention to detail, the ability to work independently, in a group, or on a team.(Apply)</p> <p>2) Conflict resolution Identify typical conflict situations (disagreements, auditee delaying tactics, interruptions, etc.) and determine appropriate techniques (negotiation, cool-down periods, etc.) for resolving them. (Apply)</p> <p>3) Written Communication Techniques Develop and review technical reports for critical factors, including whether the document meets the needs of the intended audience, how the report will be used, what type of photographs, illustrations, or graphics will be effective. (Apply)</p> <p>4) Interviewing Techniques Define and use appropriate interviewing techniques, including active listening, open-ended or closed question types, determining the significance of pauses and their length, prompting a response, clarifying by paraphrasing, etc., in various situations, such as when supervisors are present, during group interviews, with a group of workers, when using a translator, etc. (Apply)</p> <p>5) Team dynamic and facilitation skills Define and use various techniques to support team-building efforts and to help maintain group focus, both as a participant and as a team leader. Describe the classic stages of team development (forming, storming, norming, performing), and use coaching, guidance, and other facilitation techniques to support effective teams. (Apply)</p>	
<p align="center">VII</p>	<p align="center">VI. QUALITY TOOLS AND TECHNIQUES (10 Questions)</p>	<p align="center">-2 Questions</p>
<p align="center">7A</p>	<p>A. Basic Quality Tools Identify, interpret, and apply the seven basic quality tools: 1) Pareto charts, 2) cause and effect diagrams, 3) flowcharts, 4) control charts, 5) check sheets, 6) scatter diagrams, and 7) histograms. (Apply)</p>	
<p align="center">7C</p>	<p>B. Descriptive Statistics Identify, interpret, and use commonly used measures of central tendency (mean, median, mode) and dispersion (standard deviation, variance, frequency distribution). (Apply)</p>	

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7D	<p>C. Sampling Methods Define, distinguish between, and classify defect characteristics in terms of critical, major, minor, etc. (Apply)</p>	
7E	<p>D. Process Capability Identify and distinguish the basic elements of C_p and C_{pk} . (Remember) [NOTE: this topic will be tested at the definition level only; no calculations required.]</p>	
7F	<p>E. Qualitative and Quantitative Analysis Describe and distinguish between qualitative and quantitative analyses, and attributes and variables data. (Apply)</p>	