



Australian Government

FBPAUD5003 Audit a heat treatment process

Release: 1

FBPAUD5003 Audit a heat treatment process

Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

Application

This unit of competency describes the skills and knowledge required to support a food safety audit that includes heat treatment processes designed to bring about a defined logarithmic reduction of the target organism to ensure safe food.

This unit applies to individuals who are responsible for auditing heat treatment processes. Audit processes would typically occur within the context of auditing a hazard analysis critical control point (HACCP)-based food safety program that defines related prerequisite program requirements. This unit applies to auditing aspects of the process that directly relate to delivering the prescribed heat treatment. It covers related factors, including raw materials receipt, pre- and post-process storage and packaging methods and materials only to the extent that they impact on or are controlled by the heat treatment process.

This unit supports relevant legislation, including food standards included in the Australia New Zealand Food Standards Code, industry codes of practice relating to validation and verification of a food safety program, and the audit requirements detailed in the National Regulatory Food Safety Auditor Guideline and Policy, and should be read in conjunction with these documents.

Both regulatory and commercial audit system owners may specify additional certification requirements of auditors eligible to audit food safety programs within their system.

Pre-requisite Unit

The prerequisite units of competency for this unit are:

- FBPAUD4002 Communicate and negotiate to conduct food safety audits
- FBPAUD4003 Conduct food safety audits
- FBPAUD4004 Identify, evaluate and control food safety hazards

Unit Sector

Food safety auditing (AUD)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and assess food safety hazards and related control options for heat treatment processes	1.1 Identify microbiological food safety hazards that could present a risk in the food at the point of consumption, by type, origin and food association level, and assess to determine the significance of the hazard 1.2 Identify heat treatment processes, control requirements and methods to ensure that finished, heat-treated products meet food safety objectives
2. Confirm that appropriate evidence supports validation of the heat treatment process	2.1 Review validation evidence and records to confirm that an appropriate level of validation has been applied 2.2 Identify and assess evidence used by the business to validate the process to confirm that it is credible and adequate to achieve the food safety objective
3. Confirm verification of the food safety program for a heat treatment process	3.1 Identify, collect and review system records required to support verification 3.2 Review business documentation and conduct inspections to confirm that facilities and equipment design and components comply with regulatory and business standards 3.3 Review business documentation and conduct inspections to confirm that operational monitoring and testing procedures and frequency meet regulatory requirements, and industry and business standards

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret information relating to food safety and audit guidelines
Navigate the world of work	- Apply knowledge of regulations and policies relevant to food safety standards in the workplace - Monitor adherence to legal and regulatory standards and responsibilities for self and others

Skill	Description
Get the work done	Use problem-solving skills to identify and analyse non-conformance

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPAUD5003 Audit a heat treatment process	FDFAU4007B Audit a heat treatment process	Updated to meet Standards for Training Packages Unit code updated to reflect AQF level	Equivalent unit

Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

Assessment Requirements for FBPAUD5003 Audit a heat treatment process

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Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has actively participated in two food safety program audits of food heat treatment processes, including:

- retorting cans or pouches
- pasteurisation.

For each audit, individuals must also show evidence of:

- documenting evidence that details the review of the processor's hazard analysis critical control point (HACCP) plan to determine if the critical control points (CCPs) are correctly identified, valid, adequately monitored and verified
- using time temperature indicators (TTIs) to measure the effectiveness of a range of heat treatment
- evaluating raw materials
- evaluating sterilisation packaging and equipment (relevant to aseptic systems) and post-process handling.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- regulations, codes of practice, guidelines, technical specifications and, where appropriate, specific product heat treatment requirements and Australian Standards relating to heat treatment of foods
- relevant sections of the Australia New Zealand Food Standards Code
- target organisms that can occur in heat-treated foods and related survival and growth characteristics
- principles of heat treatment and application of heat-processing methods to product types

- criteria used to specify and evaluate heat treatment for each heat processing method
- factors that impact on heat distribution and heat penetration according to both retorting and pasteurisation methods
- principles of operation of commercial heat-processing equipment, including equipment features required to meet regulatory requirements, and critical factors to be controlled to ensure delivery of prescribed heat treatment and related processes, including retorting and pasteurisation
- procedural safeguards used to track processing of product
- principles of packaging to form a suitable seal, and impact of packaging system and heat treatment methods and equipment on process effectiveness and packaging integrity
- characteristics of raw materials and pre-processing requirements that impact on the microbiological profile and that need to be considered in determining the thermal process
- post-processing packaging and handling that impact on the ability to maintain the food safety objective following thermal processing, and related prerequisite programs required to support effectiveness of heat treatment processes
- food safety risks and controls to avoid post-process contamination of heat-treated product
- principles of sampling requirements and test methods to confirm equipment integrity, effectiveness of heat treatment, packaging system and seal integrity, and post-processing conditions to meet regulatory, industry and business standards.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated as an individual (not part of a group) in a real workplace
- resources, equipment and materials:
 - food safety plans covering heat treatment processes
 - plant and equipment that would typically be used in a commercial manufacturing business
 - scenarios of different heat treatment processes
- specifications:
 - food safety-related documentation typical of commercial manufacturing businesses and used for the purpose of verification
 - evidence and documentation relevant to heat treatment processes that would typically be used by commercial manufacturing businesses to support validation processes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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