



Australian Government

Assessment Requirements for FBPTEC4002

Apply principles of food packaging

Release: 1

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Modification History

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

Performance Evidence

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

There must be evidence that the individual has analysed and evaluated at least two types of food packaging, including (for each):

- analysing packaging system components, including:
 - materials used and interaction with product
 - costs
 - processes
 - legal and customer requirements
 - environmental and handling implications
- analysing and confirming safety aspects of processes and equipment
- analysing non-conformances and packaging problems and determining probable cause
- proposing improvements to the packaging system.

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:

- purpose of packaging and the properties of packaging materials designed to protect products and extend shelf-life, including the role of packaging in providing:
 - protection of products from contamination (microbial, pest infestation and physical damage)
 - barriers (atmospheric, moisture, flavour and light)
 - package seal ability and seal integrity
 - easy-to-open access to products
 - information to consumers about products
 - market appeal

- materials and their properties
- packaging interactions with food products
- costs
- features of packaging design that preserve products
- legislative requirements relating to packaged products and food safety
- requirements of products handled in the workplace, including coated packaging products, and active/interactive packaging films
- factors that influence the selection of packaging materials
- corrective actions to prevent packaging non-conformance
- characteristics of products, and their behaviour when packaged, across the shelf-life of the product
- typical problems that occur in the packaging process, and likely causes and appropriate response options including:
 - pathogens and spoilage that occur in packaged food and the conditions required for their occurrence
 - intrinsic features of food type, including pH, water activity, nutrient content, presence of microbiological compounds, respiration rate (fresh fruit and vegetables) and biological structure
 - extrinsic factors, including processing method, temperature, water loss and humidity, maturity (applies to maturity of fruit and vegetables when harvested), handling, cleaning, sanitation and personal hygiene practices, and gaseous composition of storage atmosphere
 - food spoilage indicators, including microbial contamination, enzymic browning and sensory degradation of characteristics, such as flavour, aroma, colour and texture
 - the effect of gas composition for modified atmosphere packaging processes, including knowledge of the role of the most commonly used gases in food packaging (carbon dioxide, oxygen, nitrogen), reactions between gases, packaged products and packaging materials
- quality assurance systems to ensure that packaged products meet customer and legal requirements
- relevant sources of technical expertise and related authority levels to address packaging issues.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
 - product, packaging components and consumables
 - packaging process equipment
- specifications:

- relevant standard operating procedures
- packaging specifications
- workplace information recording systems, requirements and procedures.

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

Links

Companion Volume Implementation Guides are found in VETNet: -

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