



**Australian Government**

# **Assessment Requirements for FBPBEV3003 Operate and monitor a brewery fermentation process**

**Release: 1**

# Assessment Requirements for FBPBEV3003 Operate and monitor a brewery fermentation process

## Modification History

| Release   | Comments                                                                                       |
|-----------|------------------------------------------------------------------------------------------------|
| Release 1 | This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 6.0. |

## 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 set up, operated, adjusted and shut down brewery fermentation and maturation equipment to process at least one batch of beer to specifications, including:

- applying safe work practices
- applying food safety procedures to work practices
- monitoring control points within the fermentation process
- sampling to ensure yeast effectiveness and freedom from bacterial contamination
- undertaking corrective action required in the event of variation to specifications and operating parameters.

## 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, principles and requirements of the fermentation and maturation of beer
- relationship between the fermentation and maturation process, and the wort production process
- stages and changes that occur during fermentation
- fermentation process specifications, procedures and operating parameters
- significance of control points within the fermentation and maturation process
- fermentation equipment and instrumentation components, purpose and operation
- vessel-cooling systems for the brewery fermentation process
- purpose of temperature control and cold storage in the beer maturation process
- purpose of protein absorbing agents
- purpose of oxygen scavenging agents
- purpose of tannin absorbing agents

- procedures for vessel transfer
- quality characteristics to be achieved
- common causes of variation, and corrective action required
- purpose of finings in a beer maturation process
- purpose of dry hopping
- purpose of other flavour additions in cellars
- health and safety hazards and controls, including the purpose and limitations of protective clothing and equipment relevant to the work process
- contamination/cross-contamination and food safety risks related to the fermentation and maturation process and related controls
- common microbiological, physical, chemical and allergen hazards related to brewing, including the types of hazards likely to occur, the conditions under which they occur, possible consequences, and control methods to prevent occurrence
- good manufacturing practices (GMP) relevant to work task
- procedures and responsibilities for reporting problems during the fermentation process
- environmental issues and controls, including waste handling and disposal
- shutdown and cleaning requirements associated with changeovers, and types of shutdowns
- recording requirements and procedures for fermentation
- cleaning and sanitisation procedures for beer fermentation and maturation equipment
- sampling and testing procedures.

## Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
  - a brewery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - relevant hazard control equipment
  - manual handling equipment
  - fermentation and maturation processing equipment
  - wort to be processed
  - sampling and testing equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - recording 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 Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>