



Australian Government

FBPOPR2030 Operate a brewery fermentation process

Release: 1

FBPOPR2030 Operate a brewery fermentation process

Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0

Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a brewery fermentation process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a brewery fermentation process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

FBPOPR2011 Identify key stages and beer production equipment in a brewery

Unit Sector

Operational (OPR)

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. Prepare the fermentation process for operation	1.1 Check production requirements according to job specifications 1.2 Confirm availability of required materials according to operating requirements 1.3 Confirm availability of services according to workplace

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	procedures 1.4 Wear appropriate personal protective clothing and ensure correct fit according to work health and safety requirements 1.5 Conduct pre-start checks according to operator instructions, including checking that hygiene and sanitation standards are met and all safety guards are in place 1.6 Set the fermentation process to meet production requirements
2. Operate and monitor the system	2.1 Start up, operate and monitor the system for variation in operating conditions according to work health and safety and operating procedures 2.2 Confirm system and sub-system outputs meet specifications 2.3 Monitor equipment to confirm operating condition 2.4 Monitor and control temperature to confirm operating condition 2.5 Monitor and control pressure to ensure operating condition 2.6 Undertake analysis to ensure yeast effectiveness and freedom from bacterial contamination according to food safety and workplace procedures
3. Recover beer if required	3.1 Put yeast slurry through a beer recovery process in order to minimise beer wastage 3.2 Transfer recovered beer to appropriate tank or vessel according to food safety and workplace procedures
4. Shut down the system	4.1 Shut down the system safely according to operating procedures 4.2 Clean and maintain equipment to meet the cleaning schedule and procedural requirements 4.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.4 Record workplace information in the appropriate format

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 workplace and standard operating procedures relevant to job role - Interpret production requirements
Writing	Record operating, routine maintenance and shutdown information on paper-based and electronic media
Numeracy	- Monitor and interpret production and process control indicators and data - Monitor supply and flow of materials to and from the process
Navigate the world of work	- Apply workplace procedures to own role and responsibilities - Identify skills, knowledge and experience required for performing own role in the workplace - Ask questions to clarify understanding or seek further information
Interact with others	- Communicate and report operational and safety information to relevant personnel - Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures
Get the work done	- Access and interpret process control panels and system - Maintain a clean and hazard-free work area - Identify out-of-specification standards and maintain quality specifications - Confirm equipment status and condition - Interpret process and equipment information to monitor process and respond to abnormal performance and variations

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2030 Operate a brewery fermentation process	FDFOP2067A Operate a brewery fermentation process	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

Assessment Requirements for FBPOPR2030 Operate a brewery fermentation 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 set up, operated, adjusted and shut down a brewery fermentation process on at least one occasion, including:

- accessing workplace information to identify process requirements
- confirming availability of materials and services
- conducting pre-start checks, including:
 - inspecting equipment condition to identify any signs of wear
 - selecting appropriate settings and/or related parameters
 - cancelling isolation or lock-outs
 - confirming that equipment is clean and correctly configured for processing requirements
 - positioning sensors and controls correctly
 - ensuring any scheduled maintenance has been carried out
 - confirming that all safety guards are in place and operational
- operating vessel transfer equipment
- handling dangerous goods according to procedures
- monitoring control points within the fermentation process
- undertaking corrective action required in the event of variation to specifications and operating parameters
- sampling to ensure yeast effectiveness and freedom from bacterial contamination
- identifying work health and safety hazards and implementing appropriate action
- shutting down the process and equipment, and implementing cleaning requirements associated with changeovers
- handling waste according to requirements and procedures
- cleaning and sanitising equipment according to workplace procedures
- selecting, fitting and using personal protective clothing and equipment
- maintaining work area to meet housekeeping standards.

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 process
- relationship between the fermentation process, the wort production process and the maturation process
- stages and changes that occur during fermentation
- fermentation process specifications, procedures and operating parameters
- significance of control points within the fermentation process
- fermentation equipment and instrumentation components, purpose and operation
- vessel-cooling systems for the brewery fermentation process
- common causes of variation and corrective action required
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- procedures and responsibilities for reporting problems during the fermentation process
- environmental issues and controls, including waste handling requirements and procedures for the fermentation process
- shutdown and cleaning requirements associated with changeovers, and types of shutdowns
- recording requirements and procedures for a brewery fermentation process
- cleaning and sanitation procedures for brewery fermentation equipment
- sampling and testing procedures for fermentation.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a workplace 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 process equipment
 - fermentation raw material and other ingredients
- specifications:
 - standard operating procedures and related advice on specific safe work practices, company policies, and codes of practice relating to work health and safety
 - advice on relevant legislation and codes of practice relating to work health and safety
 - information systems and procedures.

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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