



Australian Government

FBPDPR3005 Operate and monitor a butter oil process

Release: 1

FBPDPR3005 Operate and monitor a butter oil process

Modification History

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

Application

This unit of competency describes the knowledge and skills required to set up, operate, monitor and shut down the components of a butter oil process. This process, also known as an anhydrous milk fat (AMF) process, is used for the preparation of butter oil from either cream or melted butter.

This unit applies to individuals who apply operating principles to the operation and monitoring of butter oil equipment and processes in a dairy product production environment. Operators must be capable of operating a butter oil process using either cream or melted butter.

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

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

Pre-requisite Unit

Nil

Unit Sector

Dairy Processing (DPR)

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 butter oil equipment and process	1.1 Confirm materials are available to meet production specification 1.2 Identify safety requirements and wear appropriate personal

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
for operation	protective equipment, ensuring correct fit 1.3 Identify food safety requirements for high and low boil products 1.4 Fit and adjust machine components and attachments needed for operating requirements 1.5 Enter parameters required to meet safety and operating requirements 1.6 Conduct pre-start checks according to workplace requirements
2. Monitor butter oil processing	2.1 Start up and operate the butter oil process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions 2.3 Adjust equipment operations to meet product specification 2.4 Take samples to confirm that product meets specifications 2.5 Identify, rectify or report out-of-specification product or process outcomes 2.6 Maintain the work area according to workplace guidelines, health and safety, and food safety requirements 2.7 Maintain workplace records in required format according to workplace procedures
3. Shut down the butter oil process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to workplace procedures 3.3 Identify and report maintenance requirements according to workplace procedures 3.4 Clean equipment and dispose of waste in line with environmental requirements

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
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Skill	Description
Reading	Interpret standard operating procedures for the butter oil process
Writing	Complete processing records using digital and/or paper-based formats
Numeracy	- Read and monitor gauges and scales - Monitor pressure (kPa), temperature (°C) and water flow (cubic metres per second)

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPDPR3005 Operate and monitor a butter oil process	FBPDPR2002 Operate a butter oil process	Unit code and title updated to match complexity of task Minor changes to Performance Criteria to clarify task Foundation Skills refined Performance Evidence clarified Minor changes to Knowledge Evidence and Assessment Conditions	Equivalent

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 FBPDPR3005 Operate and monitor a butter oil process

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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 operated and monitored a butter oil process to produce at least one batch of product from cream, or from melted butter, to meet specifications, including:

- applying food safety procedures to work practices
- following safe work procedures
- taking corrective action in response to typical faults and inconsistencies.

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 and basic principles of each stage in the butter oil process, including an understanding of the stages, process flow and phases produced
- basic operating principles of equipment, including:
 - the principles of centrifuges and principles of evaporation
 - main equipment components
 - status and purpose of guards
 - equipment operating capacities and applications
 - the purpose and location of sensors and related feedback instrumentation
- services required for a butter oil process, and action to take if services are not available
- the effect of outputs on downstream processes
- quality characteristics (fat content) to be achieved by the process
- quality requirements of in-feed materials (cream or butter), and the effect of variation in material quality on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters

- typical equipment faults and related causes, including:
 - signs and symptoms of faulty equipment
 - early warning signs of potential problems
- methods used to monitor the production process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- good manufacturing practices (GMP) relevant to work task
- Food Standards Code requirements for the production of butter
- common causes of variation, and corrective action required, including how earlier stages in the process could contribute to cloudy product
- contamination/cross-contamination and food safety risks, and related control measures
- health and safety hazards and controls relevant to butter oil process
- isolation, lock-out and tag-out procedures and responsibilities
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
 - emergency and routine shutdowns
 - procedures to follow in the event of a power outage
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste or rework collection and handling procedures related to the process
- cleaning and sanitisation procedures for the butter oil processing equipment
- procedures to record traceability of product and ingredients.

Assessment Conditions

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

- physical conditions:
 - a dairy processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective equipment
 - butter oil production equipment and related services
 - cream or butter to be processed
 - cleaning materials, equipment and procedures
- specifications:
 - work procedures, including advice on safe work practices, food safety, quality and documentation requirements
 - information on equipment capacity and operating parameters
 - recipe/batch specifications, control points and processing parameters
 - sampling schedules and test procedures and equipment

- documentation and 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.

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