



Australian Government

FBPOPR3023 Operate and monitor an evaporation process

Release: 1

FBPOPR3023 Operate and monitor an evaporation 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 skills and knowledge required to set up, operate, adjust and shut down an evaporation process.

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

All work must be carried out to comply with workplace procedures according to state/territory health and safety, environmental 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

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 for work in processing area	1.1 Read or listen to work instructions from supervisor and clarify where required 1.2 Confirm materials are available to meet processing requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm equipment is clean and not locked out 1.4 Wear appropriate personal protective clothing and ensure correct fit according to health and safety requirements
2. Prepare the evaporation process for operation	2.1 Enter processing and operating parameters as required to meet food safety and production requirements 2.2 Carry out pre-start checks according to operator instructions
3. Operate and monitor equipment	3.1 Start, operate and monitor the process for variation in operating conditions 3.2 Monitor the process to confirm that specifications are met 3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.4 Follow and apply workplace cleaning procedures and environmental requirements
4. Shut down the evaporation process	4.1 Identify the appropriate shutdown procedure 4.2 Shut the process down safely according to operating procedures 4.3 Identify and report maintenance requirements in line with workplace procedures 4.4 Maintain workplace records in 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 work task - Interpret production requirements
Writing	Record processing data using digital and/or paper-based formats
Numeracy	Monitor and interpret production and process control indicators and data, including temperature (°C), vacuum, steam flow and

Skill	Description
	pressure, time, speed, motor amperage

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR3023 Operate and monitor an evaporation process	FBPOPR2034 Operate an evaporation 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 FBPOPR3023 Operate and monitor an evaporation 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 operated an evaporation process to produce at least one batch of product to meet specifications, including:

- applying safe work procedures
- following food safety procedures
- monitoring control points and conducting inspections as required to confirm process remains within specification, including:
 - temperatures
 - vacuum
 - motor amperage
 - condensate flow
 - steam flow and pressure
 - throughput
 - time/speed
 - evaporated product characteristics
- 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 evaporation, including:
 - an understanding of the principles of steam
 - the relationship between boiling point and pressure as applied to evaporation
 - the changes that occur to product as it moves through the evaporation process
- basic operating principles of evaporation equipment, including:

- main equipment components
- status and purpose of guards
- equipment operating capacities and applications
- the purpose and location of sensors and related feedback instrumentation
- quality characteristics to be achieved by the evaporation process
- the flow of the evaporation process and the effect of product output on downstream processes
- quality requirements of materials and the effect of variation on process performance
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters
- good manufacturing practices (GMP) relevant to work task
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, and early warning signs of potential problems
- techniques used to monitor the evaporation process, including inspecting, measuring and testing
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/cross-contamination and food safety risks associated with the process, and related control measures relevant to the evaporation process
- common causes of variation, and corrective action required
- health and safety hazards and controls relevant to the evaporation process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the evaporation process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitisation procedures for evaporation equipment
- recording procedures to ensure traceability of product.

Assessment Conditions

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

- physical conditions:
 - a food processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - evaporation equipment and related services
 - personal protective clothing and equipment

- materials to be evaporated
- sampling schedules and test procedures and equipment
- cleaning materials and equipment
- specifications:
 - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
 - information on equipment capacity and operating parameters
 - production schedule, batch/recipe instructions
 - recording requirements.

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>