



Australian Government

FBPDPR2007 Operate a cooling and hardening process

Release: 1

FBPDPR2007 Operate a cooling and hardening 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, adjust and shut down a process to cool and harden dairy products to specification.

This unit applies to individuals who apply basic operating principles to the operation and monitoring of equipment and processes used to cool and harden dairy products in a dairy products production environment.

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 cooling and hardening process for operation	1.1 Confirm materials and personal protective equipment are available for operating requirements 1.2 Identify and confirm equipment has been cleaned according to work health and safety and food safety requirements 1.3 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>
	protective clothing and equipment, ensuring correct fit 1.4 Conduct pre-start checks according to workplace requirements
2. Operate and monitor the cooling and hardening process	2.1 Start up and operate the cooling and hardening process according to workplace procedures 2.2 Identify variation in equipment operation, and report maintenance requirements 2.3 Confirm that specifications are met at each stage 2.4 Identify or report out-of-specification product or process outcomes 2.5 Maintain the work area according to workplace guidelines, work health and safety and food safety requirements 2.6 Enter information in workplace records in required format
3. Shut down the cooling and hardening 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

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 standard operating procedures for the cooling and hardening process
Writing	Record data and observations using digital and/or paper-based formats
Numeracy	- Read and interpret gauges and scales - Confirm process remains within specification for time, temperature (°C), flow rates and pressure

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPDPR2007 Operate a cooling and hardening process	FBPDPR2004 Operate a cooling and hardening process	Minor changes to Performance Criteria to clarify intent 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 FBPDPR2007 Operate a cooling and hardening 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 cooling and hardening equipment to process at least one batch of product, including:

- following safe work procedures
- following food safety requirements
- identifying out-of-specification or non-conforming products.

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 the cooling and hardening process, including:
 - the principles of heat transfer
 - the difference between latent heat energy transfer and sensible heat energy transfer
- basic operating principles of 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
- the flow of the cooling and hardening process and the effect of product output on downstream processes
- quality characteristics to be achieved by cooling and hardening process
- 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

- techniques used to monitor the cooling and hardening process, such as 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
- contamination, cross-contamination and food safety risks associated with the process, and related control measures
- work health and safety hazards and controls relevant to cooling and hardening process
- 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
- 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 cooling and hardening process, including waste collection and handling procedures
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitisation procedures for cooling and hardening equipment
- recording requirements for 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:
 - personal protective equipment
 - cooling and hardening equipment and services
 - cleaning materials, equipment and procedures
- specifications:
 - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
 - production schedules and batch or recipe instructions
 - specifications, control points and processing parameters
 - 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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