



**Australian Government**

# **Assessment Requirements for FBPDPR2004**

## **Operate a cooling and hardening process**

**Release: 1**

## Assessment Requirements for FBPDPR2004 Operate a cooling and hardening process

### Modification History

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

### Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit.

There must be evidence that, on at least one occasion, the individual has set up, operated and monitored, and shut down a cooling and hardening process, including:

- conducted pre-start checks on machinery used for cooling and hardening dairy products
- started, operated, monitored and adjusted the cooling and hardening process equipment to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records in required format
- applied safe work practices and identified work health and safety hazards and controls
- safely shut down equipment
- applied food safety procedures to work practices.

### 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
- stages and changes which occur during cooling and hardening

- quality characteristics to be achieved by cooling and hardening process
- effect of in-feed characteristics on cooling and hardening 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
- 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
- common causes of variation and corrective action required
- contamination and food safety risks associated with the process and related control measures
- work health and safety hazards and controls
- 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
- routine maintenance procedures
- cleaning and sanitation procedures for cooling and hardening equipment.

## Assessment Conditions

Assessment of this unit of competency 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
  - cooling and hardening process and related equipment and services
  - cleaning materials equipment and procedures
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - stock flow systems, production schedules and batch or recipe instructions
  - information on equipment capacity and operating parameters

- specifications, control points and processing parameters
- sampling schedules and test procedures and equipment
- documentation and recording requirements and procedures
- relationships:
  - interactions with team members and supervisors or realistic scenarios or roleplays.

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>