

# Assessment Requirements for FBPOPR2044 Operate a retort process

Release: 1

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### **Modification History**

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

#### **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 operated a retort process on at least one occasion, including:

- accessing workplace information to identify processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services, including confirming container coding, and treating or confirming availability of treated cooling water
- 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 as required
  - 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
- starting, operating, monitoring and adjusting the cooking and cooling process equipment
  to achieve required outcomes, including monitoring control points and conducting
  inspections as required to confirm process remains within specification, including:
  - time
  - temperature
  - pressure at each stage
- cooling, cleaning and handling post-treated containers to meet requirements
- monitoring supply and flow of materials to and from the process
- taking corrective action in response to out-of-specification results
- responding to and/or reporting equipment failure within level of responsibility

- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- · completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace procedures
- cleaning and sanitising equipment according to workplace procedures
- following relevant work health and safety procedures.

#### **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 heat treatment and retort process, including:
  - relationship between time and temperature in the retort process
  - changes and requirements of each stage, including cooking, cooling and post-treatment container handling
- the purpose and requirements of container coding
- basic operating principles of equipment required for operating a retort process, including main equipment components, including:
  - thermometers, chart recorder, temperature control system, clock and pressure gauges
  - status and purpose of guards
  - equipment operating capacities and applications
  - purpose and location of sensors and related feedback instrumentation
- the flow of the retort process and the effect of product output on downstream processes
- quality characteristics required of the retorted product
- effect of raw material characteristics on process performance
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults for a retort process operation and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- techniques used to monitor the retort 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
- contamination/food safety risks associated with the process and related control measures, including both the risks of contamination related to processing and to post-processing handling of containers
- common causes of variation and corrective action required, including the effects of variables, including container size, product particulates, pH, water activity, time/temperature and pressure on process outcomes

- work health and safety hazards and controls relevant to operating a retort 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 required for operating a retort process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the 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 sanitation procedures required for operating a retort process.

#### **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
  - retort process and related equipment and services
  - materials to be processed
  - sampling schedules and test procedures and equipment
  - cleaning procedures, 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 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.

#### Links

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