



Australian Government

Assessment Requirements for FBPOPR3014 Operate and monitor a retort process

Release: 1

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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 a retort process to treat at least one batch of product to specification, including:

- monitoring control points and conducting inspections as required to confirm process remains within specification, including:
 - time
 - temperature
 - pressure at each stage
- taking corrective action in response to out-of-specification results
- following safe work 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

- different types of retort processes and products treated
- 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
- 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, including both the risks of contamination related to processing and to post-processing handling of containers
- time and temperature required to ensure product becomes sterile
- common causes of variation, and corrective action required, including the effects of variables, including container size, product particulates, pH, time/temperature and pressure on process outcomes
- 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
- good manufacturing practices (GMP) relevant to work task
- 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 sanitisation procedures required for retorting equipment
- procedures to record 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 clothing and equipment

- retort equipment and related services
- product to be retorted
- cleaning materials and equipment
- specifications:
 - work procedures, including advice on safe work practices, food safety, and quality requirements
 - information on equipment capacity and operating parameters
 - production schedule/batch specifications, control points and processing parameters
 - documentation and 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>