



Australian Government

Assessment Requirements for FBPBEV2001

Operate a deaeration, mixing and carbonation 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 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, on at least one occasion, the individual has:

- conducted pre-start checks on machinery used for deaeration, mixing and carbonation
- started, operated, monitored and adjusted process equipment according to work health and safety policies and procedures to achieve required quality outcomes
- taken corrective action in response to typical faults and inconsistencies
- completed workplace records as required
- shut down equipment safely
- applied food safety policies and 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 each stage of the deaeration, mixing and carbonation process, including the relationships between pressure, temperature and volume on processing outcomes
- basic operating principles of deaeration, mixing and carbonation equipment including:
 - main equipment components
 - status and purpose of guards
 - equipment operating capacities and applications
 - purpose and location of process equipment sensors and related feedback instrumentation
 - equipment service requirements and actions to take if services are not available
- process flow of the deaeration, mixing and carbonation and the effect of outputs on downstream processes, including:
 - how each stage of the process affects related stages

- how the outputs of this process affect the filling stage
- quality characteristics to be achieved by each stage of the process, including:
 - amount of dissolved air to be removed at deaeration
 - typical water and syrup ratios for product types
 - volume of carbon dioxide to be dissolved in the aerated product
- quality and condition requirements of inputs and effect of variation on process performance including:
 - characteristics of different ingredients
 - how ingredients behave when processed
- operating requirements of deaeration, mixing and carbonation equipment 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 and early warning signs of potential problems
- methods used to monitor the production process, including inspecting, measuring and testing as required by the process including:
 - inspection or test points (control points) in the process
 - procedures and recording requirements
 - test procedures for brix and carbonation
 - other tests
- contamination and food safety risks associated with the process and related procedures
- common causes of variation in output quality and corrective action required
- work health and safety hazards and controls for deaeration, mixing and carbonation equipment
- requirements of different shutdown procedures for the process including:
 - workplace production requirements
 - 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 process, including waste and rework collection and handling procedures related to the deaeration, mixing and carbonation equipment and process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for deaeration, mixing and carbonation equipment
- cleaning and sanitation procedures for deaeration, mixing and carbonation equipment.

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 used for food handling and safe operation of equipment
 - suitable water supply
 - procedures and equipment for cleaning deaeration, mixing and carbonation equipment and work area
- specifications:
 - workplace procedures, including safe work practices, food safety, quality, and environmental requirements
 - specifications, control points and parameters for the deaeration, mixing and carbonation equipment and process
 - deaeration, mixing and carbonation equipment operating and service manuals
 - record-keeping documents required for the work specified in the performance evidence.

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>