



Australian Government

Assessment Requirements for FBPOIL3008 Operate and monitor a hydrogenation 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 and monitored a hydrogenation process to improve the hardness, viscosity, flavour and shelf-life of at least one batch of oil to meet specifications, including:

- applying safe work practices
- following food safety procedures
- making adjustments to the operating parameters to ensure quality outcomes
- taking corrective action in response to typical faults and inconsistencies.

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 hydrogenation process, including a basic understanding of the chemical structure of oil and the effect of hydrogenation on this structure
- 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
- services required for a hydrogenation process, and action to take if services are not available
- good manufacturing practices (GMP) relevant to work task
- the flow of the hydrogenation process and the effect of outputs on downstream edible oils and fats processes
- quality characteristics to be achieved by the hydrogenation process

- quality requirements of oil, catalyst and filter aid as used, and effect of variation on hydrogenation 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
- methods used to monitor the hydrogenation process, including inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the hydrogenation process, and related procedures and recording requirements
- contamination/cross-contamination and food safety risks associated with the hydrogenation process, and related control measures
- common causes of variation, and corrective action required
- health and safety hazards and controls, including an understanding of the hazards associated with the use of hydrogen
- requirements of different shutdowns as appropriate to the hydrogenation 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 hydrogenation process, including waste/rework collection and handling procedures
- routine maintenance procedures for hydrogenation equipment
- cleaning and tank clearing procedures for hydrogenation equipment
- product traceability procedures.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - an oil processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - hydrogenation equipment and related services
 - personal protective equipment
 - oil, catalyst and filter aid as required for the hydrogenation process
 - sampling schedules, test procedures and equipment
 - cleaning 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 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>