



Australian Government

Assessment Requirements for FBPSUG2016

Operate a crystalliser station process

Release: 1

Assessment Requirements for FBPSUG2016 Operate a crystalliser station process

Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

Performance Evidence

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

There must be evidence that, on at least one occasion and in line with workplace contexts, the individual has operated a crystalliser station process, including:

- confirmed availability of equipment, massecuite and services to meet production requirements
- conducted pre-start checks of equipment according to procedures
- selected, fitted and used personal protective equipment (PPE)
- safely started up, operated and monitored the process and equipment operation
- started up from empty or from full in manual and automatic modes
- operated the process from the low grade pan receiver through the crystallisers to the re-heater
- conducted shift changeover according to workplace procedure
- performed an operational shutdown
- taken corrective action in response to typical operating faults and product and process non-conformance
- reported and/or recorded process and production and corrective action.

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 principles of crystallisation, including a basic understanding of crystal growth and super saturation of solutions
- the effect of C molasses dilution on C-massecuite viscosity
- the effect on C molasses purity of variation in:
 - end of cooling and re-heating temperatures
 - residence time

- equipment purpose and basic operating principles of crystallisation equipment
- requirements when starting up full crystallisers containing cold massecuite
- requirements when shutting down full crystallisers containing hot massecuite
- significance and method of monitoring control points within the process
- key health and safety requirements when operating a crystalliser station process:
 - hazards and associated control measures
 - correct use of PPE
 - procedures for responding to emergency situations
 - lock-out and tag-out procedures
- shut down sequence, including massecuite pumps and re-heaters
- requirements of both operational and long-term shutdown conditions
- procedures and responsibility for reporting problems relating to the crystalliser station process
- environmental and waste handling requirements and procedures relevant to crystalliser station process operations
- recording requirements and procedures relevant to crystalliser station process operations.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - PPE
 - crystalliser station equipment
 - materials, including massecuite
 - routine maintenance tools
 - workplace information recording system
- specifications:
 - workplace and operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
 - product and process specifications and operating parameters
 - workplace cleaning procedures, sampling schedule 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 Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>