



**Australian Government**

# **FBPSUG2013 Operate a pan station**

**Release: 1**

## FBPSUG2013 Operate a pan station

### Modification History

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

### Application

This unit of competency describes the skills and knowledge required to operate the panning process from the liquor and A/B molasses tanks to the high grade fugal distributor and low grade pan receiver.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Sugar milling (SUG)

### Elements and Performance Criteria

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                              |
| 1. Prepare the pan station for operation         | 1.1 Confirm liquor and molasses are available to meet production requirements<br>1.2 Confirm services are available and ready for operation<br>1.3 Check equipment in readiness for use according to operating specifications<br>1.4 Select, fit and use personal protective equipment according to |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                             |
|                                                  | workplace safety procedures<br>1.5 Set up the pan station to meet production requirements                                                                                                                                                                                                                                                                                                          |
| 2. Operate and monitor pan station               | 2.1 Start and operate the pan station process according to operating procedures<br>2.2 Monitor control points to confirm performance is maintained within specification<br>2.3 Ensure C sugar and C molasses meet specification<br>2.4 Monitor equipment to confirm operating condition<br>2.5 Identify, rectify or report process and equipment non-conformance according to workplace procedures |
| 3. Hand over the pan station                     | 3.1 Maintain workplace records according to workplace procedures<br>3.2 Carry out shift changeover according to workplace procedures<br>3.3 Ensure pan station operators are aware of system and related equipment status at completion of handover                                                                                                                                                |
| 4. Shut down the pan station                     | 4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions<br>4.2 Shut down the system safely according to operating procedures<br>4.3 Prepare the system for storage in shutdown mode<br>4.4 Identify and report operational maintenance requirements                                                                                                      |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

| Skill   | Description                                                                                                                                                                                      |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading | <ul style="list-style-type: none"> <li>Interpret production requirements, workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul> |
| Writing | <ul style="list-style-type: none"> <li>Record maintenance, changeover and shutdown information in required format</li> </ul>                                                                     |

| Skill                      | Description                                                                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Numeracy                   | <ul style="list-style-type: none"> <li>Interpret production and process control indicators and data</li> </ul>                                                                                        |
| Navigate the world of work | <ul style="list-style-type: none"> <li>Follow workplace procedures applicable to own role and responsibilities</li> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul> |
| Interact with others       | <ul style="list-style-type: none"> <li>Apply communication practices and protocols relevant to own role</li> </ul>                                                                                    |
| Get the work done          | <ul style="list-style-type: none"> <li>Complete tasks in required sequence</li> <li>Apply decision-making processes to respond to abnormal performance</li> </ul>                                     |

## Unit Mapping Information

| Code and title current version      | Code and title previous version      | Comments                                                                                  | Equivalence status |
|-------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------|--------------------|
| FBPSUG2013<br>Operate a pan station | FDFSUG213A<br>Operate a pans station | Updated to meet Standards for Training Packages<br><br>Title changed from 'pans' to 'pan' | Equivalent unit    |

## Links

Companion Volume Implementation Guides are found in VETNet: -

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

## Assessment Requirements for FBPSUG2013 Operate a pan station

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### 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 pan station in line with workplace contexts and demonstrated each of the following points at least once:

- conducted pre-start checks and confirmed equipment status and condition
- started up and operated equipment in both automatic and manual modes
- safely operated, monitored and adjusted the process and equipment operation
- added process additives as required by pan performance
- prepared magma and grain for high/low grade seed production
- prepared slurry for seed production
- controlled station throughput and A/B balance to meet factory throughput through pan scheduling
- conducted shift changeover procedure
- shut down and cleaned pans according to schedule or as indicated by equipment monitoring
- taken corrective action in response to typical operating faults and product and process non-conformance
- correctly recorded process and production information.

### 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 pan station operation, including the principles of crystallisation that may relate to operation of batch and continuous pans
- sugar industry quality standards for each brand of sugar
- factors that affect throughput and recovery, including the relationship between sugar pol and throughput; the balance between A, B and C pans and the effect of cane quality and boiling formula

- factors that affect flow of massecuite through the system
- the effects of massecuite quality on operations
- relationship between boiling point and pressure in the pans station
- equipment purpose and basic operating principles of pans station equipment, including vacuum pumps and condensers
- significance and method of monitoring control points within the process
- common causes of variation, and corrective action
- shutdown requirements:
  - shutdown sequence, including massecuite pumps and stock management
  - requirements of operational and long-term shutdowns
- key health and safety requirements when operating a panning process:
  - hazards and associated control measures
  - correct use of personal protective equipment (PPE)
  - lock-out and tag-out procedures
- environmental and waste handling requirements and procedures for operating a pan station.

## 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
  - pan station equipment
  - materials, including molasses and liquor
  - workplace information recording system
  - routine maintenance tools
- specifications:
  - workplace operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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