



Australian Government

FBPSUG2009 Operate an extraction station

Release: 1

FBPSUG2009 Operate an extraction 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 prepare and operate an extraction station in sugar cane operation.

The unit applies to individuals who work under supervision in the sugar milling industry and who are competent to operate turbines and reciprocating engines where required.

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 extraction process for operation	1.1 Confirm cane is available to meet production requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to operating specifications 1.4 Select, fit and use personal protective equipment as required

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

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	Interpret workplace and standard operating procedures and production requirements relevant to job role
Writing	Record maintenance, handover and shutdown information in required format
Numeracy	Interpret production and process control indicators and data

Skill	Description
Navigate the world of work	- Follow workplace procedures applicable to own role and responsibilities - Understand main tasks, responsibilities and boundaries of own role
Interact with others	Apply communication practices and protocols relevant to own role
Get the work done	- Complete tasks in required sequence - Apply decision-making processes to respond to routine performance abnormalities

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2009 Operate an extraction station	FDFSUG209A Operate an extraction station	Updated to meet Standards for Training Packages	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 FBPSUG2009 Operate an extraction 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 an extraction station in line with workplace contexts and demonstrated each of the following points at least once:

- confirmed availability of equipment, services and cane to meet production requirements
- selected, fitted and used personal protective equipment (PPE)
- safely started up and monitored supply and flow of cane to the process, and bagasse and juice from the process
- monitored the process and equipment operation
- took corrective action in response to typical operating faults and product and process non-conformance
- reported and recorded process and production data
- conducted shift changeover procedure
- shut down equipment in both automatic and manual modes and reported maintenance requirements.

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 extraction, including shredder operation, mills and diffusers as required in the workplace
- the flow of this process and the relationship between extraction, boilers and evaporation
- the effect of cane quality, added water and mill operation on extraction
- consequences of poor lubrication
- the role of cooling water for equipment operation
- quality characteristics of bagasse and their effect on boiler operation
- equipment purpose and basic operating principles of extraction equipment

- significance and method of monitoring control points within the process
- common causes of variation, and corrective action required
- key health and safety requirements when operating an extraction station in the workplace:
 - hazards and associated control measures
 - manual handling procedures
 - correct use of PPE
 - procedures for responding to emergency situations
 - lock-out and tag-out procedures
- requirements of operational and long-term shutdown conditions to ensure the equipment is left in a safe state for the period of the shutdown and to minimise any delays in future start-up
- procedures and responsibility for reporting problems associated with the extraction process
- environmental and waste handling requirements and procedures for the extraction process.

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
 - extraction station equipment
 - materials and services required for operating an extraction station
 - workplace information recording system
 - maintenance tools
- 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
 - 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.

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