



Australian Government

FBPGRA3030 Operate and monitor a reduction system

Release: 1

FBPGRA3030 Operate and monitor a reduction system

Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to set up, operate, monitor and shut down a reduction system to reduce the size of the endosperm and produce flour.

This unit applies to individuals who work in a grain processing production environment under the direction of the miller or head miller. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of break roll equipment.

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

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

Pre-requisite Unit

Nil

Unit Sector

Grain Processing (GRA)

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 reduction equipment for operation	1.1 Confirm materials are available according to operating requirements 1.2 Carry out pre-start checks according to operator instructions

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify and confirm work area is clean according to food safety standards, and equipment is not locked out 1.4 Select, fit and use personal protective equipment and clothing as required of workplace policies 1.5 Check processing or operating parameters to meet safety requirements
2. Operate and monitor equipment	2.1 Monitor the process according to safe work procedures 2.2 Identify any variation in equipment operation, and report to miller 2.3 Take and check product samples to confirm that flour produced is in line with expectations, and report any variation 2.4 Identify and report out-of-specification product or process outcomes according to workplace procedures 2.5 Maintain the work area according to safe work and food safety procedures 2.6 Maintain workplace records according to workplace procedures
3. Complete the reduction process	3.1 Assist with shutting down the process safely according to operating procedures 3.2 Identify and report maintenance requirements according to workplace procedures 3.3 Ensure waste is disposed of in line with environmental 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	Interpret directions for the safe operation of equipment
Writing	Record product and processing information using digital and/or paper-based formats
Numeracy	Measure product using weight (kg, T) and volume (L, hL), to two

Skill	Description
	- decimal points • Use percentages (%) as they apply to mixes of grain • Monitor supply and flow of materials to and from the reduction process • Accurately interpret readings on scales and gauges

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPGRA3030 Operate and monitor a reduction system	Not applicable	The unit has been created to address a skill or task required by industry that is not covered by an existing unit	Newly created

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

Assessment Requirements for FBPGRA3030 Operate and monitor a reduction system

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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 and monitored a reduction system on at least one occasion to produce flour, including:

- applying safe work practices
- applying food safety procedures to work practices
- ensuring flour is produced to specification, following the head miller's instructions
- reporting inconsistencies or variations.

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 reducing semolina and grain
- basic operating principles of equipment, including:
 - main equipment components, including any level control system, feed roll, feed gate, main rolls, roll adjustment, scrapers
 - auxiliary equipment
 - status and purpose of guards
 - the purpose and location of sensors and related feedback instrumentation
- services required, and action to take if services are not available
- good manufacturing practices (GMP) relevant to work task
- the flow of the reduction system and the basic effect of outputs on downstream processes
- basic equipment faults and related causes, including:
 - signs and symptoms of faulty equipment
 - early warning signs of potential problems
 - symptoms of chokes and blockages, and action required to clear
- methods used to monitor the reduction rolls, including visual inspections to check:

- the inlet product for variation
- consistency of product
- granulation of product from left and right
- for signs of hollow grinding
- temperature of product from left to right of rolls is consistent
- basic contamination/cross-contamination and food safety risks associated with the reduction rolls, and related control measures
- basic common causes of poor or inadequate reduction, including worn rollers
- health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the reduction system, including:
 - production stop
 - routine mill shutdown
 - unexpected production stop
 - emergency 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, including waste and rework collection
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- routine maintenance procedures for a reduction system
- cleaning and sanitation procedures for workspace and equipment
- procedures to track traceability of product
- procedures to ensure biosecurity requirements are met.

Assessment Conditions

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

- physical conditions:
 - a grain processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - conditioned grain suitable for the reduction system
 - personal protective equipment
 - milling and related equipment and services
- specifications:
 - production schedule
 - work procedures, including advice on safe work practices, food safety, quality and environmental requirements.
- relationships:

- supervisor/head miller.

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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