



Food Processing Industry

FDF 98

Flour Milling Competency Units

**NATIONAL FOOD INDUSTRY
TRAINING COUNCIL**

Qualification	Code
Certificate III in Food Processing	FDF30198
Certificate II in Food Processing	FDF20198
Certificate I in Food Processing	FDF10198

© Australian National Training Authority

All rights reserved. This work has been produced initially with the assistance of funding provided by the Commonwealth Government through ANTA. This work is copyright, but permission is given to trainers and teachers to make copies by photocopying or other duplicating processes for use within their own training organisation or in a workplace where the training is being conducted. This permission does not extend to the making of copies for use outside the immediate training environment for which they are made, nor the making of copies for hire or resale to third parties. For permission outside of these guidelines, apply in writing to Australian National Training Authority.

The views expressed in this version of the work do not necessarily represent the views of ANTA.

Australian National Training Authority does not give warranty nor accept any liability in relation to the content of this work.

Published by: Australian Training Products Ltd
GPO Box 5347BB
MELBOURNE VIC 3001
Telephone: +61 3 9630 9836 or 9630 9837
Facsimile: +61 3 9639 4684

First Published: November 1998

STOCKCODE; 4820008STD

Printed by Document Printing Australia Pty Ltd, MELBOURNE AUSTRALIA

INDEX TO:	Flour Milling Units
------------------	----------------------------

UNIT CODE	UNIT TITLE	PAGE NO.
FDF FMDC1 A	Locate industry and company products and processes (Flour Milling)	1
FDF FMSS2 A	Operate a scratch and sizing process	5
FDF FMSG2 A	Operate a scalping and grading process	9
FDF FMRP2 A	Operate a reduction process	13
FDF ZZFR2 A	Operate a grain receival process	17
FDF ZZFB2 A	Operate a flour blending process	21
FDF FMPP2 A	Operate a purification process	25
FDF ZZPM2 A	Operate a flour pre-mix process	29
FDF FMCO2 A	Operate a grain conditioning process	33
FDF FMGC2 A	Operate a grain cleaning process	37
FDF FMWB2 A	Operate a wheat break process	41
FDF FMOS3 A	Operate a system (Flour Milling)	45

FDF FMDC1 A

Locate industry and company products and processes (Flour Milling)

Descriptor

This is a specialist unit that has been customised for the flour milling sector. It covers the products and processes used in their workplace.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Processes and procedures are carried out within company policy and procedures and legislative requirements
- Flour milling is carried out within company policy and procedures and legislative requirements
- Flour milling processes will typically include grain blending, conditioning, screening, wheat break, scalping and grading, scratching and sizing, purifying, reducing, pre-mixing and flour blending
- Stock for the flour milling system is stored and supplied through a silo system

Element	Performance criteria	Evidence guide – Part A
Identify products and quality products	<p>Company product range is identified</p> <p>Quality requirements of final products are identified in accord with company standards</p>	<p>Part A of the Evidence guide identifies the knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify materials and production requirements – identify and locate materials used in the work process – identify and locate production and/or packaging stages and processes in the workplace – comply with OHS and food safety requirements when moving around the workplace <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – range of final products produced by the company – basic understanding of brand image, company goals and philosophy – quality requirements/specifications for final products – consequences of product failing to meet quality requirements – stages and processes used to manufacture product – basic purpose of equipment used at each stage – outputs at each stage of the process (<i>cont.</i>)
Identify and locate production and packaging processes	<p>Raw materials and related handling systems are located and operated as required</p> <p>Production and packaging stages and processes are identified</p> <p>Equipment used for each stage is located</p>	

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – raw materials/consumables used – preparation, packaging, handling and storage of finished product prior to sale – OHS, quality, food safety and environmental requirements relating to own work

Evidence guide – Part B

Assessment guide

- Assessment must take account of the food industry’s endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry’s core competencies for the particular AQF level.

Assessment context

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to describe flour milling products and processes given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production systems, stages and processes
- raw materials, in-process and finished product requirements and/or specifications

Relationship to other units

Co-requisites:

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Relationship to learning resources

Main learning resources:

- Introductory Milling A (Flour Milling)

- Introductory Milling B (Flour Milling)

Related learning resources:

- Industrial Communication A
- Calculations A
- Occupational Health and Safety A
- Quality Assurance A
- Food Safety A (Hygiene and Sanitation A)

Operate a scratch and sizing process

**FDF
FMSS2 A**
Operate a scratch and sizing process

Descriptor This is a specialist unit that has been developed for the flour milling sector. It involves the operation of a separation process which ensure as little bran as possible ends up with the remaining endosperm.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Equipment used in the scratch and sizing process may include reduction rolls, plansifters, purifiers, flake disruptors, detachers, mechanical/pneumatic stock transfer equipment
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Stock for the scratch and sizing is supplied from the scalping and grading process
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the scratch and sizing process for operation	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being available for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The scratch and size process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify production requirements for the scratch and sizing process – select, fit and use personal protective clothing and equipment – confirm supply of necessary materials and services to the scratch and sizing process – confirm equipment status and condition – set up and start up the process. This can involve the use of process control systems – monitor the scratch and sizing process and equipment operation to identify out-of-specification results or non-compliance (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the scratch and sizing process	<p>The scratch and size process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Particle size and quantity of stock meet specifications</p> <p>Stock flow to and from the scratch and sizing process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor supply and flow of stock to and from the scratch and sizing process – transfer stock to designated location – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down scratch and sizing equipment in response to an emergency situation – shut down scratch and sizing equipment in response to routine shutdown requirements – prepare scratch and sizing equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the scratch and sizing process – relationship between the scratch and sizing process and other flour milling processes – stages and changes which occur during scratch and sizing – effect of scratch and sizing process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the scratch and sizing process – services used in the scratch and sizing process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures
Shut down the scratch and sizing process	<p>Scratch and sizing process is shut down according company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – purpose and basic principles the scratch and sizing process – relationship between the scratch and sizing process and other flour milling processes – stages and changes which occur during scratch and sizing – effect of scratch and sizing process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the scratch and sizing process
Record information	Workplace information is recorded in appropriate format	<ul style="list-style-type: none"> – services used in the scratch and sizing process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a scratch and sizing process given: work procedures including advice on safe work practices, food safety and environmental requirements

- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- scratch and sizing equipment
- services as required
- stock required for the scratch and sizing process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

Apply basic food safety practices

Apply basic mathematical concepts

Apply basic quality assurance practices

Communicate in the workplace

Apply safe work procedures

Co-requisites:

Implement occupational health and safety principles and procedures

Collect, present and apply workplace information

Implement the food safety plan

Implement the quality system

Operate a grain cleaning process

Operate a wheat break process

Operate a scalping and grading process

Related units:

Clean and sanitise equipment

Apply sampling techniques

Conduct routine tests

Conduct routine preventative maintenance

Where related units form an integral part of operating a scratch and sizing process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

Scratch and Sizing Systems

Related learning resources:

Cleaning and Sanitation

Food Safety B (Hygiene and Sanitation B and C)

Industrial Communication B

Occupational Health and Safety B

Quality Assurance B

Screenroom Operations

Stock Scalping and Grading

Wheat Break System

Descriptor This is a specialist unit that has been developed for the flour milling sector. It involves the separation of the break stock (chop) into appropriate flows to the next break, purifiers and sizing rolls.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Scalping and grading equipment includes plansifters and accessories, mechanical/pneumatic stock transfer equipment. Supporting systems may include compressors, aspirators and filtrators
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Stock for the scalping and grading process is supplied from the scalping and grading process
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
<p>Prepare the scalping and grading process for operation</p>	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The scalping and grading process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> - access workplace information to identify production requirements for the scalping and grading process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the scalping and grading process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems - monitor the scalping and grading process and equipment operation to identify out-of-specification results or non-compliance (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the scalping and grading process	<p>The scalping and grading process is started up to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Particle size of stock meets specifications</p> <p>Stock flow to and from scalping and grading process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (cont.)</i></p> <ul style="list-style-type: none"> – monitor supply and flow of materials to and from the scalping and grading process – take corrective action in response to out-of-specification results or non-compliance – adjust and clean screens – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down scalping and grading equipment in response to an emergency situation – shut down scalping and grading equipment in response to routine shutdown requirements – prepare scalping and grading equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance
Shut down the scalping and grading process	<p>Scalping and grading process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the scalping and grading process – relationship between the scalping and grading process and other flour milling processes – stages and changes which occur during scalping and grading – effect of scalping and grading process on end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the scalping and grading process – services used in the scalping and grading process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures
Record information	<p>Workplace information is recorded in appropriate format</p>	<p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a scalping and grading process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- scalping and grading equipment
- services as required
- stock required for the scalping and grading process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system
- Operate a grain cleaning process
- Operate a wheat break process

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a scalping and grading process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Stock Scalping and Grading

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Screenroom Operation
- Wheat Break System

Descriptor This is a specialist unit that has been developed for the flour milling sector. It involves grinding and sifting endosperm particles to gradually reduce their size to meet specifications

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Reduction equipment may include reduction rolls, plansifters, impactors, entoleters (flake disruptors and detachers)
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Stock for the reduction is supplied from either the scalping and grading or scratch and sizing or purification processes
- By-products (co-products) may include semolina, sharps
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the reduction process for operation	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for reduction operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The reduction process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> - access workplace information to identify production requirements for the reduction process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the reduction process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems - monitor the reduction process and equipment operation to identify out-of-specification results or non-compliance (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the reduction process	<p>Reduction process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Particle size meets specifications</p> <p>Flour extraction rates meet production specifications</p> <p>By-product generated from the reduction process is segregated and transferred to designated storage area according to food safety requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor supply and flow of materials to and from the reduction process – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down reduction equipment in response to an emergency situation – shut down wheat break equipment in response to routine shutdown requirements – prepare reduction equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the reduction process – relationship between the reduction process and other flour milling processes – stages and changes which occur during reduction – effect of reduction process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the reduction process – services used in the reduction process – common causes of variation and corrective action required
Shut down the reduction process	<p>Reduction process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures
Record information	Workplace information is recorded in appropriate format	<ul style="list-style-type: none"> – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a reduction process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- reduction equipment
- services as required
- stock required for the reduction process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system
- Operate a grain screening process
- Operate a wheat break process
- Operate a scalping and grading process
- Operate a scratch and sizing process
- Operate a purification process

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a reduction process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Reduction System

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Scratch and Sizing Systems
- Screenroom Operations
- Stock Scalping and Grading
- Scratch and Sizing systems
- Stock Purification
- Wheat Break System

FDZ ZZGR2 A Operate a grain receival process

Descriptor This is a specialist unit that has been developed for both the flour milling and petfood sectors. It involves handling the grain intake through a silo system, testing and conditioning grain and maintaining an infestation free storage and work area.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- The grain receival equipment may include weighbridge, mechanical/pneumatic stock transfer equipment, magnets, weighers, grain cleaning equipment, sampling and testing equipment (for example, balance, moisture meter, infra analyser, chronometer, sieves)
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Pest control and pesticide treatment will be handled by people with the appropriate government licence
- Infestation may include insects, rodents, birds
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the grain receival process for operation	<p>Materials are confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The grain receival process is set to meet intake requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify requirements for the grain receival process – select, fit and use personal protective clothing and equipment – confirm supply of necessary materials and services to the grain receival process – confirm equipment status and condition – set up and start up the process. This can involve the use of process control systems (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the grain receival process	<p>The grain receival process is started up to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Incoming grain is sampled, tested and directed to silos according to food safety and storage requirements</p> <p>Infestation is identified and action taken for its removal from the grain receival area according to pest control requirements</p> <p>Stock flow to and from grain receival process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the grain receival process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor the grain receival process and equipment operation to identify out-of-specification results or non-compliance. – collect samples and conducts in-process tests to monitor product quality – identify/report infestation, illegal seeds – monitor supply and flow of materials to and from the grain receival process – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down grain receival equipment in response to an emergency situation – shut down grain receival equipment in response to routine shutdown requirements – prepare grain receival equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the grain receival process – principles of operation of the silo system – relationship between the grain receival process and other flour milling processes – stages and changes which occur during grain receival – effect of grain receival process on the end product – types of grain and their quality parameters – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation
Shut down the grain receival process	<p>Grain receival process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – significance and methods of monitoring control points within the grain receival process – services used in the grain receival process – common causes of variation and corrective action required (<i>cont.</i>)
Record information	<p>Workplace information is recorded in appropriate format</p>	

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – pest control and pesticide treatment responsibilities – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food and beverage industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a grain receival process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- grain receival equipment

- services as required
- stock in the grain receival process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules
- documentation and recording requirements and procedures
- Australian Wheat Board standards
- wheat identification charts

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system
- Operate a grain conditioning process
- Operate a grain cleaning process

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of a grain receival process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Parts of Materials Handling A, B and C
- Stockfeed Raw Materials Handling

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor This is a specialist unit that has been developed for the flour milling sector. It involves combining flours into a new finished product.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Blending equipment may include blenders, sieves, weighing equipment, mechanical/pneumatic stock transfer equipment
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Stock used in blending includes flours, vitamins, bleach
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the blending process for operation	Stock is confirmed and available to meet production requirements Services are confirmed as being ready for operation Equipment is checked to confirm readiness for use The bending process is set to meet production requirements	Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables. Demonstrated ability to: <ul style="list-style-type: none"> - access workplace information to identify production requirements for the blending process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the blending process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems - monitor the blending process and equipment operation to identify out-of-specification results or non-compliance. This can involve adjusting flow rates - monitor supply and flow of materials to and from the blending process (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the blending process	<p>The blending process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Blended product meets specifications</p> <p>Blended product is stored according to food safety requirements</p> <p>Stock flow to and from blending process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – take corrective action in response to out-of specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down blending equipment in response to an emergency situation – shut down blending equipment in response to routine shutdown requirements – prepare blending equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the blending process – relationship between the blending process and other flour milling processes – stages and changes which occur during blending – types of additives and ingredients – effect of blending process on end product – quality characteristics to be achieved – legislative requirements in blending flour products – microbiological considerations in mixing flours – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control – points within the blending process – services used in the blending process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures
Shut down the blending process	<p>Blending process is shut down according to procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – effect of blending process on end product – quality characteristics to be achieved – legislative requirements in blending flour products – microbiological considerations in mixing flours – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control – points within the blending process – services used in the blending process
Record information	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a blending process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch/recipe instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- blending equipment
- services as required
- stock required for the blending process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a blending process in the workplace, these units should be co-assessed

Relationship to learning resources

Main learning resource:

- Flour Pre-Mixing and Blending

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor This is a specialist unit that has been developed for the flour milling sector. It covers a separation and grading process which involves a combination of sieving, shaking, gravity and aspiration to remove any particles of bran, with or without endosperm or germ attached, from the stock flow

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Equipment used in the purification process is a series of purifiers with related dust and collection systems, mechanical/pneumatic stock transfer equipment -
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Stock for purification is supplied from either the scratch and sizing process
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the purification process for operation	Stock is confirmed and available to meet production requirements Services are confirmed as being ready for operation Equipment is checked to confirm readiness for use The purification process is set to meet production requirements	Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables. Demonstrated ability to: <ul style="list-style-type: none"> - access workplace information to identify production requirements for the purification process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the purification process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems - monitor the purification process and equipment operation to identify (cont.)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the purification process	<p>The purification process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Particle size and quantity of stock meets specifications</p> <p>Fine bran is removed from the semolina and the bran product with endosperm attached is returned to the purification process or scratch rolls for further processing</p> <p>Stock flow to and from purification process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – out-of-specification results or non-compliance. This can include the need to make adjustments to stock flow, feed gates and screens – monitor supply and flow of materials to and from the purification process – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down purification equipment in response to an emergency situation – shut down purification equipment in response to routine shutdown requirements – prepare purification equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the purification process
Shut down the purification process	<p>Purification process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – relationship between the purification process and other flour milling processes – stages and changes which occur during purification – effect of purification process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters
Record information	<p>Workplace information is recorded in appropriate format</p>	<ul style="list-style-type: none"> – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the purification process – services used in the purification process - common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment and the *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a purification process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- purification equipment
- services as required
- stock required for the purification process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required

- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system
- Operate a grain cleaning process
- Operate a wheat break process
- Operate a scalping and grading process
- Operate a scratch and sizing process

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a purification process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resources:

- Purification

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Scratch and Sizing Systems
- Screenroom Operation
- Stock Scalping and Grading
- Wheat Break System

FDZ ZZPM2 A Operate a flour pre-mix process

Descriptor This is a specialist unit that has been developed for both the flour milling and petfood sectors. It involves operating a pre-mix process to combine additives and raw materials/ingredients to create a product for internal or external customers.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Pre-mix equipment may include mixers, sieves, weighing equipment, mechanical/pneumatic stock transfer equipment
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Materials used in pre-mix may include additives, ingredients
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the pre-mix process for operation	Materials are confirmed and available to meet production requirements Services are confirmed as being ready for operation Equipment is checked to confirm readiness for use The pre-mix process is set to meet production requirements	Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables. Demonstrated ability to: <ul style="list-style-type: none"> - access workplace information to identify production requirements for the pre-mix process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the pre-mix process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the pre-mix process	<p>The pre-mix process is started up according to company specifications</p> <p>Control points are monitored to confirm that performance is maintained within specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Pre-mixed product meets specifications</p> <p>Pre-mixed product is stored according to food safety requirements</p> <p>Stock flow to and from pre-mix process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor the pre-mix process and equipment operation to identify out-of-specification results or non-compliance – monitor supply and flow of materials to and from the pre-mix process – take corrective action in response to out-of-specification results or non-compliance. – report and/or record corrective action as required – conduct product/batch changeover – sort, collect, treat, recycle or dispose of waste – shut down pre-mix equipment in response to an emergency situation – shut down pre-mix equipment in response to routine shutdown requirements – prepare pre-mix equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance
Shut down the pre-mix process	<p>Pre-mix process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the pre-mix process – relationship between the pre-mix process and other flour milling processes – stages and changes which occur during pre-mixing – types of additives and ingredients – legislative requirements in mixing flour products – microbiological considerations in mixing additives and ingredients
Recording information	Workplace information is recorded in the appropriate format	<ul style="list-style-type: none"> – effect of pre-mix process on end product – quality characteristics to be achieved – purpose of the break rolls – how and why the separation of endosperm takes place – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the pre-mix process <i>(cont.)</i>

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – services used in the pre-mix process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food and beverage industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a pre-mix process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch/recipe instructions
- material data safety sheets where appropriate

- specifications, control points and processing parameters
- pre-mix equipment
- services as required
- stock required for the pre-mix process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a flour pre-mix process in the workplace, these units should be co-assessed

Relationship to learning resources

Main learning resource:

- Flour Pre-mix and Blending

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor This is a specialist unit that has been developed for the flour milling sector. It involves adding water to the grain to create a moisture level which assists the separation and reduction processes.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Conditioning equipment may include conditioning bins, mechanical/pneumatic stock transfer equipment, automatic water addition equipment
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Stock for the conditioning process may be clean grain direct from the silo or cleaned wheat from the cleaning process
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the conditioning process for operation	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The conditioning system is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> - access workplace information to identify production requirements for the conditioning process - select, fit and use personal protective clothing and equipment - confirm supply of necessary materials and services to the conditioning process - confirm equipment status and condition - set up and start up the process. This can involve the use of process control systems - monitor the conditioning process and equipment operation to identify out-of-specification results or non-compliance (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the conditioning process	<p>The conditioning process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Conditioned product meets grist moisture specifications</p> <p>Conditioned product is stored according to food safety requirements</p> <p>Stock flow to and from conditioning process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor supply and flow of materials to and from the conditioning process – take corrective action in response to out-of specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down conditioning equipment in response to an emergency situation – shut down conditioning equipment in response to routine shutdown requirements – prepare conditioning equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the conditioning process – relationship between the conditioning process and other flour milling processes – stages and changes which occur during conditioning – types of grain and their qualities – microbiological considerations in conditioning grain – effect of conditioning process on the end product – quality characteristics to be achieved – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the conditioning process – services used in the conditioning process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures (<i>cont.</i>)
Shut down the conditioning process	<p>Conditioning process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	
Record information	<p>Workplace information is recorded in the appropriate format</p>	

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food and beverage industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a conditioning process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- conditioning equipment
- services as required
- stock required for the conditioning process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system
- Operate a grain cleaning process

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a conditioning process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Screenroom Operations

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

Descriptor This is a specialist unit that has been developed for the flour milling sector. It involves screening impurities from the grist prior to the conditioning process.

Range of variables

The range of variables provides further advice to interpret the scope and scale of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Grain cleaning equipment may include intake equipment, day bins, separators, aspirators, extractors/destoners, scourers, scales, dampers, measurers/mixers, hammer mills, impact grinders, materials handling equipment
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Raw materials for grain cleaning may include grist previously cleaned or dirty wheat which has been accepted by the mill
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the grain cleaning process for operation	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The bin system is set-up to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify production requirements for the grain cleaning process – select, fit and use personal protective clothing and equipment – confirm supply of necessary materials and services to the grain cleaning process – confirm equipment status and condition – set up and start up the process. This can involve the use of process control systems (<i>cont.</i>)

Evidence	Performance criteria	Evidence guide – Part A
Operate and monitor the grain cleaning process	<p>The grain cleaning process is started up according to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Stock meets grist specifications</p> <p>Impurity removal rate meets specifications</p> <p>Stock flow to and from the grain cleaning process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared according to company procedures</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor the grain cleaning process and equipment operation to identify out-of-specification results or non-compliance – monitor supply and flow of materials to and from the grain cleaning process – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down grain cleaning equipment in response to an emergency situation – shut down grain cleaning equipment in response to routine shutdown requirements – prepare grain cleaning equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance
Shut down the grain cleaning process	<p>Grain cleaning process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the grain cleaning process – relationship between the grain cleaning process and other flour milling processes – stages and changes which occur during grain cleaning – how and why various kinds of wheat are blended to make grist – common impurities found in the grain cleaning process
Record information	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> – effect of grain cleaning process on the end product – quality characteristics to be achieved – purpose of the break rolls – how and why the separation of endosperm takes place – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the grain cleaning process (<i>cont.</i>)

Evidence	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – services used in the grain cleaning process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures <p>May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be those typically used in a workplace. Compliance with occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than the food industry's core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a grain cleaning process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters

- grain cleaning equipment
- services as required
- stock required for the grain cleaning process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling and testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a grain cleaning process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Screenroom Operation

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B

FDF FMWB2 A

Operate a wheat break process

Descriptor This is a specialist unit that has been developed for the flour milling sector. It involves separating bran from the endosperm.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications and production schedules
- Wheat break equipment may include break rolls (roller mills), mechanical/pneumatic stock transfer equipment, bran finishers, dressing machines
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Grain for the wheat break process is supplied from the cleaning and conditioning processes
- By-products may include wheat germ, pollard, bran, semolina
- Services may include power, vacuum and compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) quality and regulatory control points as well as inspection points
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide – Part A
Prepare the wheat break process for operation	<p>Stock is confirmed and available to meet production requirements</p> <p>Services are confirmed as being ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The wheat break process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p>Demonstrated ability to:</p> <ul style="list-style-type: none"> – access workplace information to identify production requirements for the wheat break process – select, fit and use personal protective clothing and equipment – confirm supply of necessary materials and services to the wheat break process – confirm equipment status and condition – set up and start up the process. This can involve the use of process control systems – monitor the wheat break process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring bran separation (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the wheat break process	<p>The wheat break process is started up to company procedures</p> <p>Control points are monitored to confirm that performance is maintained within specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Bran separated from endosperm meets specifications</p> <p>By-product generated from the wheat break process is segregated and transferred to designated location</p> <p>Stock flow to and from wheat break process is maintained within production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor supply and flow of materials to and from the wheat break process – take corrective action in response to out-of-specification results or non-compliance – report and/or record corrective action as required – sort, collect, treat, recycle or dispose of waste – shut down wheat break equipment in response to an emergency situation – shut down wheat break equipment in response to routine shutdown requirements – prepare wheat break equipment for cleaning – maintain work area to meet housekeeping standards – record workplace information <p>May include the ability to:</p> <ul style="list-style-type: none"> – clean and sanitise equipment – take samples and conduct tests – carry out routine maintenance <p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and basic principles the wheat break process – relationship between the wheat break process and other flour milling processes – stages and changes which occur during wheat break
Shut down the wheat break process	<p>Wheat break process is shut down according to company procedures</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> – effect of wheat break process on the end product – quality characteristics to be achieved – purpose of the break rolls – how and why the separation of endosperm takes place – process specifications, procedures and operating parameters – equipment and instrumentation components, purpose and operation – significance and methods of monitoring control points within the wheat break process
Record information	<p>Workplace information is recorded in the company reporting system</p>	<ul style="list-style-type: none"> – services used in the wheat break process – common causes of variation and corrective action required – OHS hazards and controls – lock out and tag out procedures – procedures and responsibility for reporting problems – environmental issues and controls – shutdown and cleaning requirements associated with changeovers and types of shutdowns – waste handling requirements and procedures – recording requirements and procedures (<i>cont.</i>)

Element	Performance criteria	Evidence guide – Part A
		<p><i>Underpinning knowledge: (cont.)</i> May include:</p> <ul style="list-style-type: none"> – cleaning and sanitation procedures – sampling and testing procedures – routine maintenance procedures

Evidence guide – Part B

Assessment guide

- Assessment must take into account the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events under normal workplace conditions, giving due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can consistently achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The procedures and documentation should be that actually used in a workplace. Compliance with statutory OHS, hygiene and sanitation and environmental provisions relevant to the food processing industry should be emphasised.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level with this unit.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a wheat break process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions
- material data safety sheets where appropriate
- specifications, control points and processing parameters
- wheat break equipment
- services as required
- stock required for the wheat break process
- stock flow system
- related work areas and communication system
- relevant OHS clothing and equipment
- routine preventative maintenance schedule as required
- cleaning schedule as required
- sampling testing schedules as required
- documentation and recording requirements and procedures

Relationship to other units

Pre-requisites (or equivalent):

- Apply basic food safety practices
- Apply basic mathematical concepts
- Apply basic quality assurance practices
- Communicate in the workplace
- Apply safe work procedures

Co-requisites:

- Implement occupational health and safety principles and procedures
- Collect, present and apply workplace information
- Implement the food safety plan
- Implement the quality system
- Operate a grain cleaning process

Related units:

- Clean and sanitise equipment
- Apply sampling techniques
- Conduct routine tests
- Conduct routine preventative maintenance

Where related units form an integral part of operating a wheat break process in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Wheat Break System

Related learning resources:

- Cleaning and Sanitation
- Food Safety B (Hygiene and Sanitation B and C)
- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Screenroom Operation

FD F MOS3 A

Operate a system (Flour Milling)

Descriptor

This is a specialist unit that has been customised for the flour milling sector. It covers the preparation and operation of a production or packaging system.

A system typically describes the operation of an entire process which may comprise a number of sub-systems. System operation requires higher level planning and problem solving skills than are necessary when operating an individual sub-system or piece of equipment. It can also involve facilitating the work of others.

Range of variables

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial awards and agreements
- System operation typically involves planning, co-ordination and troubleshooting within their level of authority
- Flour milling equipment will depend on the milling system and may typically include intake equipment, separators, sieves, aspirators, extractors/destoners, scourers, dampers, measurers/mixers, hammer mills, grinders, break rolls (roller mills), vibrodusters, bran finishers, dressing machines, plansifters, purifiers, reduction rolls, scratch rolls, entoleters (flake disruptors and detachers), mechanical/pneumatic stock transfer equipment
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspection points
- Information systems may be print or screen based
- Co-ordination, planning and troubleshooting is undertaken with assistance from others
- Workplace systems are in place to support production/packaging processes. These include quality, food safety, occupational health and safety and environmental management

Element	Performance criteria	Evidence guide – Part A
Prepare the system for operation	Supply of materials is confirmed to meet production/packaging requirements Work area is prepared for operation Services are confirmed as available and ready for operation Equipment and work area is checked to confirm readiness for use The system is set to meet specifications	Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables. Demonstrated ability to: <ul style="list-style-type: none"> - liaise with relevant work areas to confirm or secure necessary materials, services, equipment and labour to meet production/packaging requirements - confirm that all equipment within the system meets hygiene and sanitation standards, all safety guards are in place and equipment is ready for operation <i>(cont.)</i>

Element	Performance criteria	Evidence guide –Part A
Operate and monitor the system	<p>The system is started up according to company procedures</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>System outputs meet specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared as required</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> – monitor implementation of set up and start up procedures. This may involve monitoring the use of checksheets by others – monitor observance of work procedures and systems – monitor materials flow and work-in-progress through the system – confirm that the system operates within specified parameters and control points are monitored – determine responses to out-of-specification results or non-conformance within level of responsibility – co-ordinate batch/product changeovers – communicate information effectively – plan maintenance and cleaning procedures to minimise disruption – monitor operating efficiencies of the system and investigate, resolve and/or report problems – review and maintain procedures to support system improvements
Shut down the system	<p>Equipment is shut down according to company procedures</p> <p>Cleaning and sanitising requirements for equipment and work area are identified</p> <p>Equipment is cleaned and maintained to meet production/packaging and hygiene requirements</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<p>Underpinning knowledge:</p> <ul style="list-style-type: none"> – purpose and principles of the pharmaceutical production/packaging system – equipment purpose and operation including an understanding of process control systems where used – technical knowledge of product characteristics and processing requirements – codes and legislation relating to product and packaging requirements – equipment calibration schedule and responsibilities – type and purpose of tests conducted – related work areas and departments – relevant procedures, specifications and operating parameters – relevant systems and legislative requirements
Record information	<p>Workplace information is recorded and reported in required format</p>	<ul style="list-style-type: none"> – responsibilities in areas such as human resources, food safety, quality, occupational health and safety and environmental management – industrial awards and agreements relating to system operation – hazards, risks, controls and methods for monitoring processes within the system (<i>cont.</i>)

Element	Performance criteria	Evidence guide –Part A
Contribute to continuous improvement of the system	<p>Quality of process outputs is assessed against specifications</p> <p>Opportunities for improvement are identified and investigated</p> <p>Proposals for improvements are developed and implemented within company planning arrangements and according to company procedures</p>	<p><i>Underpinning knowledge: (continued)</i></p> <ul style="list-style-type: none"> – maintenance and cleaning requirements of equipment in production/packaging system – end of batch procedures – yield and reconciliation requirements – process improvement procedures and related consultative arrangements – troubleshooting procedures and problem solving techniques – recording and reporting requirements

Evidence guide – Part B

Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Flour milling Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.

Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to prepare and operate a production or packaging system given:

- work procedures including advice on safe work practices, food safety and environmental requirements for processes within the production/packaging system
- company policies and workplace systems including human resources, OHS, quality, food safety and environmental management
- production/packaging schedule, batch instructions
- sampling and testing schedules as required
- specifications, control points and processing parameters for processes within the production/ packaging system
- production/packaging system equipment
- personnel operating the production/packaging system

- services
- related work areas and communication system
- relevant OHS clothing and equipment
- cleaning, calibration and maintenance schedules as required
- troubleshooting advice where available
- documentation and record keeping system
- planning, resources management and training arrangements

Relationship to other units

Pre-requisites or equivalent:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement the quality system
- Implement the food safety plan
- Specialist units from AQF 2 (the pre-requisites will depend on the enterprise's milling processes)

Co-requisites:

- Analyse and convey workplace information
- Monitor the implementation of occupational health and safety
- Monitor the implementation of the quality system
- Monitor the implementation of the food safety plan

Related units:

- Facilitate teams

Where related units form an integral part of system operation in the workplace, these units should be co-assessed.

Relationship to learning resources

Main learning resource:

- Flour Mill Operation A
- Flour Mill Operation B

Related learning resources:

- Industrial Communication C
- Quality Assurance C
- Occupational Health and Safety C
- Food Safety C (Hygiene and Sanitation D)
- Work Team Communication