Federal Democratic Republic of Ethiopia

OCCUPATIONAL STANDARD

GRAIN PROSESSING

NTQF Level II

Ministry of Education
July 2013

Introduction

Ethiopia has embarked on a process of reforming its TVET-System. Within the policies and strategies of the Ethiopian Government, technology transformation – by using international standards and international best practices as the basis, and, adopting, adapting and verifying them in the Ethiopian context – is a pivotal element. TVET is given an important role with regard to technology transfer. The new paradigm in the outcome-based TVET system is the orientation at the current and anticipated future demand of the economy and the labor market.

The Ethiopia Occupational Standards (EOS) is the core element of the Ethiopian National TVET-Strategy and an important factor within the context of the National TVET-Qualification Framework (NTQF). They are national Ethiopian standards, which define the occupational requirements and expected outcome related to a specific occupation without taking TVET delivery into account.

This document details the mandatory format, sequencing, wording and layout for the Ethiopia Occupational Standard which comprised of Units of Competence.

A Unit Title describes a distinct work activity. It is documented in a standard format that comprises:

- Occupational title and NTQF level
- Unit title
- Unit code
- Unit descriptor
- Elements and Performance criteria
- Variables and Range statement
- Evidence guide

Together all the parts of a Unit Title guide the assessor in determining whether the candidate is competent.

The ensuing sections of this EOS document comprise a description of the occupation with all the key components of a Unit of Competence:

- chart with an overview of all Units of Competence for the respective level including the Unit Codes and the Unit Titles
- contents of each Unit Title (competence standard)
- occupational map providing the Technical and Vocational Education and Training (TVET) providers with information and important requirements to consider when designing training programs for this standards and for the individual, a career path

UNIT OF COMPETENCE CHART

Occupational Standard: Grain Processing

Occupational Code: IND GRP

NTQF Level II

IND GRP2 01 0613 Understand Mill Operations and Technologies	IND GRP2 02 0613 Prepare Grain Storages	IND GRP2 03 0613 Apply Grain Protection Measures
IND GRP2 04 0613 Operate a Grain Cleaning Process	IND GRP2 05 0613 Operate a Grain Conditioning Process	IND GRP2 06 0613 Operate a Break Roll Process
IND GRP2 07 0613 Operate a Scalping and Grading Process	IND GRP2 08 0613 Operate a Scratch and Sizing Process	IND GRP2 09 0613 Operate a Grinding Process
IND GRP2 10 0613 Operate a Purification Process	IND GRP2 11 0613 Operate a Mixing or Blending Process	IND GRP2 12 0613 Operate an Extrusion Process
IND GRP2 13 0613 Operate the Pressing Process	IND GRP2 14 0613 Operate a Drying Process	IND GRP2 15 0613 Operate a Cooling and Hardening Process
IND GRP2 16 0613 Operate a Packaging Process	IND GRP2 17 0613 Work with Temperature Controlled Stock	IND GRP2 18 0613 Conduct Routine Maintenance
IND GRP2 19 0613 Implement the Food Safety Program and Procedures	IND GRP2 20 0613 Participate in OHS Processes	IND GRP2 21 0613 Provide Basic Emergency Life Support

IND GRP2 22 0613 Apply Quality Systems and Procedures	IND GRP2 23 0613 Participate In Workplace Communication	IND GRP2 24 0613 Work in Team Environment
IND GRP2 25 0613 Develop Business practice	IND GRP2 26 0613 Standardize and Sustain 3S	

Occupational Standard: Grain Processing Level II	
Unit Title	**Understand Mill Operations and Technologies**
Unit Code	**IND GRP2 01 0613**
Unit Descriptor	This unit of competency covers the overall knowledge of grain milling operations an employee requires to operate safely and effectively in a grain mill.

Elements	Performance Criteria
1. Locate grain mill departments, walkways, storage and assembly areas	1.1. Raw materials receivable and storage areas are located as per company procedures. 1.2. Control rooms and other main operator stations are located as per operational requirements. 1.3. Grain cleaning, conditioning, breaking, scalping and grading, scratching and sizing, grinding, purification, mixing and blending, extrusion, pressing, drying and cooling, quality checking, packaging areas are located as per company procedures. 1.4. Additive storage is located as per company procedures. 1.5. Support services, including maintenance, administration, laboratory and quality assurance, and information technology departments are located as per company procedures. 1.6. Finished products storage and dispatch areas are located as per company procedures. 1.7. ***Grain mill departments***, walkways and emergency assembly areas are located as per company procedures.
2. Describe flow of product through mill and purpose of each stage in the production process	2.1. Main raw materials and sources are described. 2.2. Grain receivable processes, including weighing, volume and quality checks are described as per company procedures. 2.3. ***Grain milling processes*** are described. 2.4. Batching and mixing processes, including recipe, micronutrients and additives are described. 2.5. Post-mixing processes, including extrusion, pressing, drying and cooling processes are described. 2.6. Labeling and packing operations are described.
3. Describe range of grains, their purpose and target species	3.1. Differences in grains are identified. 3.2. ***Target user groups*** for ***grain mill products*** are identified. 3.3. Benefits of different types of grains are described to producers.

4. Describe main risks to grain milling operations	4.1. Importance of dust control and dust control procedures are explained. 4.2. Additives requiring special safety and handling procedures are identified. 4.3. ***Typical pests*** are described and pest control procedures are explained. 4.4. Main risks to quality, including contamination, incorrect recipe adherence, incorrect sequencing and product transference, incorrect labeling and packaging are described. 4.5. Environmental procedures are identified for mill operations.

Variables	**Range**
Grain mill departments	May include but not limited to: • road and rail grain receivable, including weighbridges, general inwards goods receivable • bulk and packaged raw materials storage • grain cleaning, conditioning, breaking, scalping and grading, scratching and sizing, grinding, purification, mixing and blending, extrusion, pressing, drying and cooling, quality checking, packaging areas • maintenance • administration • laboratory and quality assurance • information technology • bulk and packaged finished products storage • road and rail despatch
Grain milling processes	May include but not limited to: • grain cleaning • grain conditioning • breaking • scalping and grading • scratching and sizing • grinding • purification • mixing and blending • extrusion • pressing, drying and cooling • quality checking and packaging
Target user groups	May include but not limited to: • human (of different age, religion, culture) • animals (cattle, poultry, horses, pigs, sheep, aquaculture)

Grain mill products	May include but not limited to: • flours of different types • flour products and • by products
Typical pests	Typical pests include: • rodents • birds • insects

Evidence Guide	
Critical Aspects of Competence	A candidate must demonstrate the ability to: • identify and locate departments, major walkways and assembly areas in the grain mill • describe the major steps in the grain production process • describe grain products and purposes, including, flours of different types, flour products and by products, basic role of additives, typical target user groups. • identify major risk factors including dust, pests, contamination and incorrect adherence to recipes.
Underpinning Knowledge and Attitude	Demonstrate Knowledge of: • purpose and basic principles of each part of the grain production process, such as grain cleaning, grain conditioning, breaking, scalping and grading, scratching and sizing, grinding, purification, mixing and blending, extrusion • pressing, drying and cooling, quality checking, packaging and other additives, sequencing of production to minimize transference and cross-contamination, and traceability procedures • range of raw materials and typical sourcing • grain product range and target user groups • basic operating principles of equipment and main equipment components • basic operating principles of process control, including the relationship between control rooms and panels and the physical equipment • the flow of the grain production process • quality characteristics and uses of finished grain • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • methods used to monitor the grain process, such as inspecting, measuring and testing as required by the process

	• contamination risks and related controls • OHS hazards and controls, including dust, contamination and materials requiring special handling procedures and emergency assembly areas
Underpinning Skills	Demonstrate skills to: • access workplace information to identify processing requirements • read diagrams and sketches • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Prepare Grain Storages**
Unit Code	**IND GRP2 02 0613**
Unit Descriptor	This unit covers the process of safely preparing storages, surrounding areas and equipment in readiness for receiving grain at an acceptable level of hygiene, and defines the standard required to: prepare the storage area for access by grain carriers; comply with Occupational Health and Safety (OHS) requirements for working in confined spaces; prepare grain storages by removing all residues and checking structures; erect simple temporary bulk material storages; prepare and test grain handling machinery and perform routine safety, servicing and maintenance procedures on tools, equipment and machinery.

Elements	Performance Criteria
1. Prepare to work in bulk material storage area	1.1. Work to be undertaken is interpreted from work program where necessary, and confirmed with supervisor. 1.2. OHS hazards are identified, risk assessed and suitable controls implemented. 1.3. Suitable personal protective equipment is selected, used and maintained. 1.4. Tools and equipment suitable for the work to be undertaken are selected, checked and maintained, if necessary. 1.5. Environmental implications of undertaking work in the bulk material ***storage area*** are identified, likely outcomes assessed and, if necessary, responsible action taken.
2. Prepare storage area	2.1. Storage site is cleaned of weeds, dust and spillage to organization requirements. 2.2. Refuse is disposed of according to regulatory requirements. 2.3. Site is maintained in a clean and tidy condition according to organizational requirements. 2.4. Storage site is prepared to meet OHS standards.
3. Prepare storages	3.1. Bulk material storages are prepared according to OHS standards. 3.2. Bulk material storages are cleaned of all residues according to organization requirements. 3.3. Bulk material storages are checked for structural safety, damage or deterioration, and repaired or reported as required according to organization requirements. 3.4. Temporary storages are prepared and erected to meet the needs of the organization according to OHS standards.

4. Prepare bulk material handling machinery	4.1. Bulk material handling machinery is cleaned free of contamination and residues according to organization requirements. 4.2. ***Bulk material handling equipment*** is adjusted and set according to organization requirements. 4.3. Bulk material handling equipment is prepared ready for use according to manufacturer's instructions and OHS standards.
5. Complete maintenance operation	5.1. Workplace information is recorded clearly and accurately in the format and at the time required by the organization. 5.2. Waste is collected and disposed of or recycled to minimize damage to the external environment as per regulatory requirements. 5.3. Tools and equipment are cleaned and stored according to organization work procedures.

Variable	**Range**
Storage areas may include but not limited to:	• permanent and/or temporary storages • the surrounding areas • Entry, exit and site roads.
Bulk material handling equipment	May include but not limited to: • Fixed and/or portable grain handling equipment.

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • prepare the storage area for access by grain carriers • comply with OHS requirements for working in confined spaces • prepare grain storages by removing all residues and checking structure • erect simple temporary bulk material storages • prepare and test grain handling machinery • Perform routine safety, service and maintenance procedures on tools, equipment and machinery.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • range of construction methods, potential hazards, safety and structural requirements for storage • erection/dismantling for types of temporary storage used by organisation • organisation and commodity quality requirements for grain storage • organisation hygiene requirements • typical signs of structural damage to be documented and reported

	• pre-operational and safety checks, servicing and maintenance procedures for tools and equipment • general machine maintenance procedures • machinery operating principles and operating methods • machinery storage and protection methods • cleaning and storage of machinery, equipment and materials • environmental impacts associated with the operation of machinery and equipment • appropriate action in contingency situations • organisation requirements for protective equipment and safe practices in relation to OHS • potential hazards associated with the operation of basic tools and equipment • relevant legislation, regulations and codes of practice with regard to workplace OHS, environment and the use and control of machinery and equipment • appropriate legislative requirements, manufacturer's instructions and organisation procedures/ instructions • personal protective clothing and equipment and when and how it should be used • Organizational recording and reporting procedures.
Underpinning Skills	Demonstrate skills to: • identify hazards and follow safe work procedures • erect simple temporary bulk material storages • check equipment and storage facilities, and identify current or impending faults • handle and manoeuvre equipment • complete pre-operational checks on basic tools and equipment • perform routine safety, service and maintenance procedures on tools, equipment and machinery • operate hand and independently powered tools and cleaning equipment to industry standards • clean, secure and store machinery and equipment • perform basic trouble shooting • recognise and rectify minor operational faults • handle hazardous substances (fuels) safely • work in confined spaces • use communication systems • Interpret and apply task instructions, communicate with work team and supervisor, and record and report faults, workplace hazards and accidents. • Read and interpret manufacturer's specifications, work and maintenance plans, and Material Safety Data Sheets.

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Apply Grain Protection Measures**
Unit Code	**IND GRP2 03 0613**
Unit Descriptor	This unit involves the skills and knowledge required to apply grain protection procedures within grain storage facilities in accordance with workplace procedures including identifying required pest control measures, preparing for application of pest control measures, monitoring application of pest control measures, ventilating, fumigated storages and maintaining records in accordance with workplace requirements.

Elements	Performance Criteria
1 Prepare for application of pest control measures	1.1 Legal and workplace requirements for fumigation are followed in accordance with work order. 1.2 ***Fumigation***/spray application requirements are followed using silo and grain storage ***information*** in accordance with manufacturer's instructions. 1.3 Written records are confirmed by site measurements and observations. 1.4 Access and site specific safety requirements to meet legislation and workplace instructions are determined. 1.5 Equipment is checked for conformance to ***workplace*** requirements and manufacturers specifications. 1.6 Where applicable, storage is checked for gas-proofing in accordance with manufacturers and workplace instructions prior to fumigation.
2 Apply pest control measures	2.1 ***Personal protective equipment*** and engineering controls are used as instructed. 2.2 ***Pest control activities*** like Fumigant and spray applications are applied in accordance with manufacturers and workplace instructions. 2.3 Warning signs are placed in accordance with legislative and workplace requirements. 2.4 Application is monitored to ensure effectiveness of operation. 2.5 Empty fumigant containers are returned to the manufacturer, retailer or disposed of in accordance with legislative and workplace requirements. 2.6 Baits are prepared in accordance with legislation and manufacturer's instructions. 2.7 Baits are placed in accordance with site requirements and manufacturer's instructions.

Variable	Range
Fumigation inert gas	May include but not limited to: • treating identified pests • for meeting grain quality standards
Information/documents	May include but not limited to: • operations manuals, job specifications and procedures • induction documentation • competency standards and training materials • manufacturers specifications, labels and instructions for fumigants, chemicals and equipment • material safety data sheets • workplace operating procedures and policies • supplier and/or client instructions • Ethiopian and international standards, criteria and certification requirements • relevant regulations and codes of practices on manual handling and industrial safety • award, workplace bargaining agreement, other industrial arrangements • OHS procedures • quality assurance procedures • emergency procedures
Workplaces	• large, medium or small worksites
Personal protective equipment	May include but not limited to: • gloves • safety headwear and footwear • safety glasses • two-way radios • protective clothing • respirators and fume/dust masks • high visibility clothing
Pest control activities	May include but not limited to: • spraying • baiting • use of controlled fumigants
Pest control agents	May include but not limited to: • must be used in accordance with relevant legislation
Customers	May include but not limited to: • internal or external
Workplace environment	May include but not limited to: • equipment • goods • products

	• materials • vehicular traffic
Work is carried out in accordance with	May include but not limited to: • required OHS procedures • hazard control strategies, including the use of personal protective equipment • manufacturer's instructions and labels for the use of fumigants and pest control chemicals
Hazards in the work area	May include but not limited to: • chemicals and pesticides • dangerous or hazardous substances • stationary and moving equipment, parts and materials • noise, light, energy sources • electrical equipment • humidity, air temperature, radiant heat • debris on floor • faulty equipment
Requirements for work	May include but not limited to: • site restrictions and procedures • licensing requirements • use of safety and personal protective equipment • communications/recording equipment • authorities and permits • emergency procedures
Communication in the work area	May include but not limited to: • phone • fax • email/internet • Electronic Data Interchange (EDI) • RF systems • oral, aural or signed communications
Consultative processes	May include but not limited to: • workplace personnel • supervisors and managers • existing and potential customers/clients • manufacturers of pesticides • suppliers and contractors • union representatives • industrial relations and OHS specialists • maintenance, professional or technical staff
Workplace procedures	May include but not limited to: • company procedures • workplace procedures • organizational and established or standard procedures

Applicable regulations and legislation	May include but not limited to: • relevant codes and regulations pertaining to grain storage • legislation regarding the use of fumigants/poisons • regulations pertaining to the storage and handling of dangerous and hazardous goods • relevant state/territory OHS legislation • relevant state/territory environmental protection legislation • relevant Ethiopian and international standards and certification requirements • workplace relations regulations including equal opportunity, equal employment opportunity and affirmative action legislation • workers compensation regulations

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • the underpinning knowledge and skills • relevant legislation and workplace procedures • other relevant aspects of the range statement
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Regulations relevant to the application of grain protection measures in grain storage facilities • Relevant OHS and environmental protection procedures and guidelines • Workplace procedures and policies for the application of grain protection measures • Problems that may occur when applying grain protection measures and appropriate action that can be taken to resolve the problems • Equipment applications, capacities, configurations, safety hazards and control mechanisms • Characteristics of commodity types, varieties and grades, and their identification • Emergency response procedures • Storage and safe handling procedures for fumigants, chemicals and other grain protection materials • Procedures for environmental control and disposal activities • Site layout and obstacles
Underpinning Skills	Demonstrate skills to: • Communicate effectively with others when applying grain protection measures • Read and interpret instructions, procedures information and labels relevant to the application of grain protection measures • Interpret and follow operational instructions and prioritise work

	• Complete documentation related to the application of grain protection measures • Operate electronic communication equipment to required protocol • Work collaboratively with others when applying grain protection measures • Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others • Promptly report and/or rectify any identified problems, faults or malfunctions that may occur when applying grain protection measures in accordance with regulatory requirements and workplace procedures • Implement contingency plans for unanticipated situations that may arise when applying grain protection measures • Apply precautions and required action to minimise, control or eliminate hazards that may exist during the application of grain protection measures • Plan own work including predicting consequences and identifying improvements • Monitor work activities in terms of planned schedule • Modify activities depending on differing operational contingencies, risk situations and environments • Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment • Operate and adapt to differences in equipment in accordance with standard operating procedures • Set up and maintain grain protection equipment • Identify, select and efficiently and effectively use equipment needed when applying grain protection measures • Identify pests that infest grain in grain storage facilities • Select and use required personal protective equipment conforming to industry and OHS standards

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Grain Cleaning Process**
Unit Code	**IND GRP2 04 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a cleaning process to screen impurities from the grist prior to the conditioning process.

Elements	Performance Criteria
1. Prepare the grain cleaning equipment and process for operation	1.1. ***Raw materials*** are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed to meet operational requirements. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. The bin system is setup to meet production requirements. 1.6. Grain cleaning equipment performance is checked and adjusted as per the operating requirements. 1.7. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the grain cleaning process	2.1. The process is started and operated according to workplace ***policies and procedures***. 2.2. ***Grain cleaning*** equipment is monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that stock meets grist specifications. 2.5. The process is monitored to confirm that impurity removal rate meets specifications. 2.6. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.7. The work area is maintained according to housekeeping standards.

	2.8. Work is conducted in accordance with workplace environmental guidelines. 2.9. Workplace records are maintained according to workplace recording requirements.
3. Shut down the grain cleaning process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variables	**Range**
Raw materials	May include but not limited to: • grist previously cleaned or dirty grain which has been accepted by the mill
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Grain cleaning equipment	May include but not limited to: • intake equipment • day bins • screens • separators • aspirators • extractors/destoners • scourers • scales • dampers • measurers/mixers • impact grinders • materials handling equipment
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs)

	• specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Operation of equipment and processes	Operation of equipment and processes may require: • the use of process control panels and systems
Services	May include but not limited to: • power • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	A candidate must demonstrate the ability to: • conduct pre-start checks on machinery and equipment used for grain cleaning • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge	Demonstrate Knowledge of: • purpose and basic principles of the grain cleaning process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the grain cleaning process and the effect of outputs on downstream processes • quality characteristics to be achieved by the grain cleaning process • quality requirements of materials and effect of variation on grain cleaning process performance • how and why various kinds of grain are blended to make grist • purpose of the break rolls • how and why the separation of endosperm takes place

	• operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the grain cleaning process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the grain cleaning process and the related procedures and recording requirements • contamination/food safety risks associated with the grain cleaning process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the grain cleaning process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the grain cleaning process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify grain cleaning process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services

	• conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that required screens are fitted and related equipment is clean and correctly configured for grain cleaning process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust grain cleaning process equipment to achieve required outcomes, including visual inspection and regular checking of collection points (filters and screens) and overtail bags • carry out process adjustments to maintain efficient removal of impurities with minimal removal of product • monitor supply and flow of materials to and from the grain cleaning process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take grain cleaning process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Grain Conditioning Process**
Unit Code	**IND GRP2 05 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a process to condition grain by adding water to create a moisture level required for the separation and reduction processes.

Elements	Performance Criteria
1. Prepare the grain conditioning equipment and process for operation	1.1. Material ***stock*** is confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. ***Grain conditioning equipment*** performance is checked and adjusted to meet operating requirements. 1.6. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the grain conditioning process	2.1. The process is started and operated according to workplace ***policies and procedures****.* 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that conditioned product meets grist moisture specifications. 2.5. Conditioned product is stored according to food safety requirements. 2.6. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.7. The work area is maintained according to housekeeping standards. 2.8. Work is conducted in accordance with workplace environmental guidelines.

	2.9. Workplace records are maintained according to workplace recording requirements.
3. Shut down the grain conditioning process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	**Range**
Stock	May include but not limited to: • clean grain direct from the silo • cleaned grain from the cleaning process
Grain conditioning equipment	May include but not limited to: • conditioning bins • mechanical/pneumatic stock transfer equipment • automatic water addition equipment
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Grain conditioning	May include but not limited to: • a two-part process
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Services	May include but not limited to: • power

	• vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	A candidate must demonstrate the ability to: • conduct pre-start checks on machinery used for grain conditioning • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge	Demonstrate Knowledge of: • purpose and basic principles of the conditioning process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the conditioning process and the effect of outputs on downstream flour milling processes • quality characteristics to be achieved by the conditioning process • quality requirements of materials and effect of variation on conditioning process performance • types of grain and their qualities • microbiological considerations in conditioning grain • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the conditioning process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the conditioning process and the related procedures and recording requirements

	• contamination/food safety risks associated with the conditioning process and related control measures, including potential risks associated with out-of-specification lying times of conditioned grain • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the conditioning process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the conditioning process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify conditioning process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • confirm conditioning and lying times • calculate water addition to suit machine and grain type • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for grain conditioning process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational

	• start, operate, monitor and adjust conditioning process equipment to achieve required outcomes, including monitoring control points and conducting tests as required, such as moisture tests to confirm process remains within specification • monitor supply and flow of materials to and from the conditioning process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take conditioning process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Break Roll Process**
Unit Code	**IND GRP2 06 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a process to separate bran from the endosperm.

Elements	Performance Criteria
1. Prepare the break roll equipment and process for operation	1.1. ***Grain for the break roll process*** is confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. ***Brake roll equipment*** performance is checked and adjusted to meet operating requirements. 1.6. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the break roll process	2.1. The process is started and operated according to workplace ***policies and procedures***. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that bran separated from endosperm meets specifications. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines. 2.8. Workplace records are maintained according to workplace recording requirements.

3. Shut down the break roll process	3.1. The appropriate shutdown procedure is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variables	**Range**
Grain for the break roll process	May include but not limited to: • Grain for the break roll process is supplied from the cleaning and conditioning processes
Break roll equipment	May include but not limited to: • break rolls (roller mills) • mechanical/pneumatic stock transfer equipment • bran finishers • dressing machines
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
By-products	May include but not limited to: • grain germ • pollard • bran
Operation of equipment and processes	May include but not limited to: • Operation of equipment and processes may require: • the use of process control panels and systems
Shutdown procedures	cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Services	May include but not limited to: • power • vacuum • compressed and instrumentation air

Evidence Guide	
Critical aspects of competence	A candidate must demonstrate the ability to: • conduct pre-start checks on machinery and equipment used to separate bran from the endosperm • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge	• purpose and basic principles of the break roll process, including how and why the endosperm separation takes place • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the break roll process and the effect of outputs on downstream processes • quality characteristics to be achieved by the break roll process • quality requirements of materials and effect of variation on break roll process performance, including the effect of moisture variation and related scope to adjust process throughput • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems, as well as an understanding of symptoms of chokes, blockages or breaches and action required to clear • methods used to monitor the break roll process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the break roll process and the related procedures and recording requirements

	• contamination/food safety risks associated with the break roll process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the break roll process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the break roll process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	• access workplace information to identify break roll process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for break roll process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust reduction process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as:

	➢ correct product type/quantity ➢ moisture content of incoming grain ➢ break roll releases ➢ even spread of feed across rolls ➢ mill balance ➢ even grind/correct particle size • monitor supply and flow of materials to and from the break roll process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take break roll process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Scalping and Grading Process**
Unit Code	**IND GRP2 07 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a production process for the separation of the break stock (chop) into appropriate flows to the next break, purifiers and sizing rolls.

Elements	Performance Criteria
1. Prepare the scalping and grading equipment and process for operation	1.1. Material ***stock*** is confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. ***Scalping and grading equipment*** performance is checked and adjusted as per the operating requirements. 1.6. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the scalping and grading process	2.1. The process is started and operated according to workplace ***policies and procedures***. 2.2. Equipment is monitored to identify variation in operating conditions as per the operating requirements. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that particle size of stock meets specifications. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines. 2.8. Workplace records are maintained according to workplace recording requirements.

3. Shut down the scalping and grading process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	**Range**
Stock	May include but not limited to: • Stock from break rolls of reduction rolls supplies the scalping and grading process
Scalping and grading equipment	May include but not limited to: • plain sifters and accessories • mechanical/pneumatic stock transfer equipment Supporting systems may include: • compressors • aspirators • filtrates
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Services	May include but not limited to: • power • vacuum • compressed and instrumentation air

Evidence Guide	
Critical aspects of competence	A candidate must demonstrate the ability to: • conduct pre-start checks on machinery and equipment used for scalping and grading • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge	Demonstrate Knowledge of: • purpose and basic principles of the scalping and grading process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation. • services required and action to take if services are not available • the flow of the scalping and grading process and the effect of outputs on downstream flour milling processes • quality characteristics to be achieved by the scalping and grading process • quality requirements of materials and effect of variation on scalping and grading process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the scalping and grading production process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the scalping and grading process and the related procedures and recording requirements • contamination/food safety risks associated with the scalping and grading process and related control measures

	• common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the scalping and grading process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the scalping and grading process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify scalping and grading process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for scalping and grading process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust scalping and grading process equipment to achieve required outcomes, such as monitoring control points and conducting inspections as required to confirm process remains within specification, including regular inspection of collection points and sifter outlets to confirm process efficiency and visual inspection of product samples to confirm particle size

	• monitor supply and flow of materials to and from the scalping and grading process • adjust and clean screens • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • demonstrate batch/product changeovers • follow isolation and lock out/tag out procedures as required to take scalping and grading process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Scratch and Sizing Process**
Unit Code	**IND GRP2 08 0613**
Unit Descriptor	This unit of competency covers the skill and knowledge required to set up, operate, adjust and shut down a separation process to ensure as little bran as possible is in the remaining endosperm.

Elements	Performance Criteria
1. Prepare the scratch and sizing equipment and process for operation	1.1. Material ***stock*** is confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. ***Equipment*** performance is checked and adjusted as per the operating requirements. 1.6. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the scratch and sizing process	2.1. The process is started and operated according to workplace ***policies and procedures***. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that particle size and quantity of stock meet specifications. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines. 2.8. Workplace records are maintained according to workplace recording requirements.

3. Shut down the scratch and sizing process	3.1. The appropriate ***shutdown procedure*** is identified 3.2. The process is shut down according to workplace procedures 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements

Variable	**Range**
Stock	May include but not limited to: • Stock for the scratch and sizing is supplied from the scalping and grading process
Equipment	May include but not limited to: • reduction rolls • plain sifters • purifiers • flake disruptors • detachers • mechanical/pneumatic stock transfer equipment
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Services	May include but not limited to: • power • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	A candidate must demonstrate the ability to: • conduct pre-start checks on machinery used for scratching and sizing • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge	Demonstrate Knowledge of: • purpose and basic principles of the scratch and sizing process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the scratch and sizing process and the effect of outputs on downstream flour milling processes • quality characteristics to be achieved by the scratch and sizing process • quality requirements of materials and effect of variation on scratch and sizing process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the scratch and sizing production process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the scratch and sizing process and the related procedures and recording requirements • contamination/food safety risks associated with the scratch and sizing process and related control measures • common causes of variation and corrective action required

	• Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the scratch and sizing process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the scratch and sizing process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify scratch and sizing process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for scratch and sizing process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust scratch and sizing process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm that the process remains within specification, such as: ➢ correct product type/quantity ➢ roll releases ➢ even spread of feed across rolls ➢ mill balance and even grind/correct particle size

	• monitor supply and flow of materials to and from the scratch and sizing process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take scratch and sizing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Grinding Process**
Unit Code	**IND GRP2 09 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down processes, such as grinding, rolling and breaking to reduce the particle size of grains.

Elements	Performance Criteria
1. Prepare the grinding equipment and process for operation	1.1. ***Materials*** are confirmed and available to meet production requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. ***Equipment*** performance is checked and adjusted as per the operating requirements. 1.6. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the grinding process	2.1. The process is started and operated according to workplace ***policies and procedures***. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that specifications are met. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted according to environmental standards. 2.8. Workplace records are maintained according to workplace recording requirements.

3. Shut down the grinding process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported.

Variable	**Range**
Materials	May include but not limited to: • grains
Equipment	May include but not limited to: • conveyors/elevators • augers • magnets • fans • sieves • hammer mills • roller mills • breaker bars • cyclones
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Shutdown procedures	May include but not limited to: • cleaning(in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standard Code, including the labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Services	May include but not limited to: • power • steam • water • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • conduct pre-start checks on machinery used for grinding • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of the grinding process, including the characteristics of materials, which can be reduced to a suitable form for product such as grain • basic operating principles of equipment, such as main equipment components, bulk materials transfer systems and equipment, dust collection equipment, grinding equipment operating capacities and applications, and the purpose and location of magnets, sensors and related feedback instrumentation • services required and action to take if services are not available • basic operating principles of process control, including the relationship between control panels and systems and the physical equipment • the flow of the grinding process and the effect of product output on downstream processes • quality characteristics and uses of grinding process outputs • effect of the grinding process on the end product • effect of raw material characteristics on grinding process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • techniques used to monitor the production process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the grinding process and related control measures

	• common causes of variation and corrective action required • Operational Health and Safety (OHS) hazards and controls, including the risk of dust explosion and an understanding of the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • product/process changeover procedures and responsibilities • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify processing requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services to the grinding process • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • operate grain control panel to transfer and grind product • monitor and adjust the grinding process and equipment operation to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, and running adjustments to hammer mills and roller mills • monitor supply and flow of materials to and from the grinding process • take corrective action in response to out-of-specification results

	• respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • complete workplace records as required • demonstrate batch/product changeovers • sort, collect, treat, recycle or dispose of waste • maintain work area to meet housekeeping standards • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Purification Process**
Unit Code	**IND GRP2 10 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a separation and grading process to remove particles of bran, with or without endosperm or germ attached, from the stock flow.

Element	Performance Criteria
1. Prepare the purification equipment and process for operation	1.1. Material ***stock*** is confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. ***Equipment*** performance is checked and adjusted as per the operating requirements. 1.6. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the purification process	2.1. The process is started and operated according to workplace ***policies and procedures***. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that particle size and quantity of stock meets specifications. 2.5. 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. 2.6. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.7. The work area is maintained according to housekeeping standards. 2.8. Work is conducted in accordance with workplace environmental guidelines.

	2.9. Workplace records are maintained according to workplace recording requirements.
3. Shut down the purification process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variables	**Range**
Stock	May include but not limited to: • the scratch and sizing process
Equipment	May include but not limited to: • purifiers with related dust collection systems • mechanical/pneumatic stock transfer equipment
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Operation of equipment and processes	Operation of equipment and processes may require: • the use of process control panels and systems
Services	May include but not limited to: • power • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	A candidate must demonstrate the ability to: • conduct pre-start checks on machinery and equipment used for purification • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge	Demonstrate Knowledge of: • purpose and basic principles of the purification process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the purification process and the effect of outputs on downstream flour milling processes • quality characteristics to be achieved by the purification process • quality requirements of materials and effect of variation on purification process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the purification process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the purification process and the related procedures and recording requirements • contamination/food safety risks associated with the purification process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls

	• requirements of different shutdowns as appropriate to the purification process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the purification process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify purification process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, fitting required screen sizes, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for purification processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust purification process equipment to achieve required outcomes, including monitoring control points, conducting inspections and making adjustments to stock flow, feed gates and screens as required to confirm purification process remains within specification, and checking efficiency to remove offal with minimal product removal • monitor supply and flow of materials to and from the purification process

	• take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take purification process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Mixing or Blending Process**
Unit Code	**IND GRP2 11 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to combine ingredients and additives in the correct quantities and sequence and to operate and shut down mixing and blending equipment to achieve the required mix characteristics.

Elements	Performance Criteria
1. Prepare the mixing or blending equipment and process for operation	1.1. Materials are confirmed and available to meet production requirements. 1.2. Pre-mixes are prepared as required. 1.3. Cleaning and maintenance requirements and status are identified and confirmed. 1.4. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.5. Processing or operating parameters are entered as required to meet production requirements. 1.6. ***Mixing or blending equipment*** performance is checked and adjusted as per the operating requirements. 1.7. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the mixing or blending process	2.1. ***Ingredients*** and additives are delivered to the mixer in the required quantities and sequence to meet recipe specifications. 2.2. The mixing or blending ***process*** is started and operated according to workplace procedures. 2.3. Equipment is monitored to identify variation in operating conditions. 2.4. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.5. The mixing process is monitored to confirm that specifications are met. 2.6. Out-of-specification product or process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.7. ***Mix*** is transferred to required production or storage location.

	2.8. The work area is maintained according to housekeeping standards. 2.9. Work is conducted in accordance with workplace environmental guidelines. 2.10. Workplace records are maintained according to workplace recording requirements.
3. Shut down the mixing or blending process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported.

Variable	**Range**
Mixing or blending equipment	May include but not limited to: • measuring and weighing equipment, such as scales, load cells • dosing equipment • mixers • pumps • in-line homogenisers • conveyors • bulk materials transfer and materials handling equipment • storage facilities Common mixer types include: • ribbon and vertical screw mixers/conveyors
Ingredient addition	May include but not limited to: • automatic materials transfer equipment • dosing equipment and/or be manually loaded
Processes	May include but not limited to: • extruding • stamping • cutting
Mixes	Mixes typically includes: • concentrated pre-mixes • pastes and cocktails • bulk mixes/blends Materials may include: • bulk and non-bulk ingredients and additives
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • consignment notes • verification procedures • standard forms and reports
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Services	May include but not limited to: • power • steam • fuel • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • prepare premixes for mixing or blending • conduct pre-start checks on machinery used for mixing or blending • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment and apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of preparing mixes and blends, including the characteristics and basic function of ingredients and additives used, method and sequence of ingredient addition required to achieve required blend characteristics, and where relevant, the purpose of conditioning, maturation or holding stages required prior to further processing of the mix • specific gravity and bulk density as appropriate for ingredients used

	• basic operating principles of mixing/blending equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, the purpose and location of sensors and related feedback instrumentation, and awareness of calibration schedules for scales and related weighing/measuring equipment • services required and action to take if services are not available • the flow of the mixing process and the effect of mix preparation on downstream processes • procedures for requisitioning, receiving and returning ingredients from stores • ingredient handling requirements and shelf-life or coding • quality characteristics required of ingredients and additives and their effect on mixing process performance, including methods used to condition or prepare ingredients prior to addition • methods used to monitor the blending or mixing process, including inspecting, measuring, and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements, such as: ➢ flow rates ➢ ingredient/additive addition sequence ➢ times/temperatures and agitator speeds ➢ required characteristics of blend, such as viscosity, appearance and temperature • required attributes of the mixed or blended output, such as chemical, texture and flavour profiles as required • the effect of the mixing or blending parameters, such as temperature and length of mix time on mixing outcome • contamination and food safety risks associated with the process and related control measures, including product compatibility and cross contamination risks and associated cleaning requirements, as well as common allergens used in mixes prepared • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the blending or mixing process and workplace production

	requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • product or process changeover procedures and responsibilities • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the mixing or blending process, including waste or rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • characteristics of solutions, suspensions and emulsions where relevant • sampling and testing associated with process monitoring and control where relevant • product labelling and storage requirements where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify mixing/blending requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • add/load materials in correct quantities and sequence, such as monitoring automatic ingredient addition and/or manual addition • start, monitor and adjust mixing or blending process equipment to achieve required outcomes, including monitoring flow rates/quantity, time or temperature and mix/blending settings • monitor control points and conduct inspections as required to confirm process remains within specification • monitor supply and flow of ingredients and additives to and from the mixing or blending process • pace mixing/blending to meet production requirements • take corrective action in response to out-of-specification results

	• respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out or tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • complete workplace records as required • demonstrate batch or product changeovers • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • label and store pre-mixes and/or mixes according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate an Extrusion Process**
Unit Code	**IND GRP2 12 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down an extrusion process. This unit refers to both wet and dry extrusion processes.

Elements	Performance Criteria
1. Prepare the extrusion equipment and process for operation	1.1. Materials are confirmed and available to meet operating requirements. 1.2. Machine components and related attachments are selected and fitted to meet operating requirements. 1.3. Processing and operating parameters are entered as required to meet safety and production requirements. 1.4. ***Extrusion equipment*** performance is checked and adjusted as per the operating requirements. 1.5. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the extrusion process	2.1. Ingredients and additives are delivered to the ***extrusion process*** in the required quantities and sequence. 2.2. Preparation of the mass is monitored to confirm that specifications are met and mass is suitable for extrusion. 2.3. The extrusion process is operated according to workplace ***policies and procedures***. 2.4. Equipment is monitored to identify variation in operating conditions. 2.5. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.6. The extruded product is monitored to confirm that specifications are met. 2.7. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.8. The work area is maintained according to housekeeping standards. 2.9. Work is conducted in accordance with workplace environmental guidelines. 2.10. Workplace records are maintained according to workplace recording requirements.

3. Shut down the extrusion process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting ***requirements***.

Variable	**Range**
Extrusion equipment	May include but not limited to: • ingredients handling and addition equipment • mixers • conditioners • cookers • dryers and coolers Some systems may also include: • expanders • oil coating systems • screens and sieves • sheeting • cutting/stamping equipment • tray feeders/take off • stackers
Extrusion process	May include but not limited to: • feeding/dosing • conditioning/cooking • mixing • extruding • drying and cooling It may also involve screening/sieving, a final additive addition stage and further processing, such as sheeting or aeration according to product type
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code including labelling, weights and measures legislation • legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity

Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Services	May include but not limited to: • power • steam • water • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on machinery used for extrusion • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment and apply food safety procedures
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of each part of the process, including the purpose and methods used to achieve each stage of the extrusion process • basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the extrusion process and the effect of outputs on downstream processes • quality characteristics of extruded output, including required characteristics of mass or blend to be extruded, such as: ➢ gelatinisation and viscosity ➢ dimensions, texture and hardness of extruded product ➢ moisture content

	• effect of variation in inputs and/or services on process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including the effect of variation in key variables, such as: ➢ throughput and work input at each stage of the process ➢ effect of time and temperature ➢ barrel pressures and temperatures at each zone • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems, such as: ➢ screw and barrel assembly wear ➢ die plate wear ➢ wear of conditioner paddles and extruder knife condition • methods used to monitor the extrusion process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • common causes of variation and corrective action required • contamination risks related to the extrusion process and related control measures • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • product/process changeover procedures and responsibilities • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the extrusion process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify processing requirements • select, fit & use personal protective clothing and/or equipment

	• confirm supply of necessary materials/ingredients and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting and fitting appropriate attachments where required, setting processing parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required at each stage of the extrusion process to confirm process remains within specification, such as: ➢ parameters such as throughput ➢ load/work input as measured by rpm (revs per minute) kilowatts, amps and/or Hz (hertz) at each stage of the process • monitor supply of materials to and from the extrusion process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • conduct routine maintenance according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate the Pressing Process**
Unit Code	**IND GRP2 13 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to prepare for and operate the pressing process.

Elements	Performance Criteria
1. Prepare the pressing process for operation	1.1 ***Product and materials*** are confirmed and available to meet pressing requirements. 1.2 Product and materials are prepared to meet pressing requirements. 1.3 ***Services*** are confirmed as available and ready for operation. 1.4 ***Equipment*** is checked to ***confirm*** readiness for use. 1.5 The process is set to meet pressing requirements.
2. Operate and monitor the pressing process	2.1 The pressing process is started up according to workplace ***policies and procedures***. 2.2 ***Control points*** are ***monitored*** to confirm performance is maintained within specification. 2.3 Pressed product meets specification. 2.4 Equipment is monitored to confirm operating condition. 2.5 Out-of-specification product, process and equipment performance is identified, rectified and/or reported.
3. Shut down the pressing process	3.1 The process is shut down according to workplace procedures. 3.2 Equipment is dismantled and prepared for cleaning. 3.3 Waste generated by both the process and cleaning procedures is collected, treated and disposed of, or recycled according to workplace procedures. 3.4 Work is conducted in accordance with workplace environmental guidelines. 3.5 ***Workplace information*** is recorded in the appropriate format.

Variable	Range
Product and materials	May include but not limited to: • dough • Different mixes
Services	May include but not limited to: • power • water

	• compressed air • inert gas • steam
Equipment	May include but not limited to: • basket press • horizontal hydraulic press • horizontal screw press • continuous screw press • pneumatic press
Confirming equipment status	May include but not limited to: • checking that hygiene and sanitation standards, safety standards and pre-start requirements are met and that equipment is operational • checking the operation and calibration status of measuring instrumentation
Policies and procedures	May include but not limited to: • Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Control points	May include but not limited to: • food safety (critical) • quality and regulatory control points • inspection points
Monitoring the process	May include but not limited to: • the use of production data
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules or instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Information systems	May include but not limited to: • print or screen based
Work hazards	May include but not limited to: • chemical, dangerous or hazardous substances

Evidence Guide	
Critical Aspects of Competence	Evidence of ability to: • use personal protective equipment and follow other specified OHS procedures • check supply and status of product, additions and finings before operating press

	• check pressing equipment status and condition before commencing operation • monitor pressing process control points and equipment during pressing • take corrective action in response to out-of-specification results or non-compliance • demonstrate knowledge of OHS hazards, controls and emergency procedures • sort, collect, treat, recycle or dispose of waste • Record information appropriately.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Purpose and principles of pressing • Link to related processes • Stages and changes which occur during pressing • Effect of process stages on end product • Quality characteristics and uses of pressing product and materials • Product and materials preparation requirements and effect of variation on the process • Main methods used in pressing • Pressing techniques that may be used to manipulate the characteristics of the product. These may include: ➢ degree of pressing and/or pressure ➢ blending and/or separating and later pressings ➢ press type (e.g. bladder versus screw) • Process specifications, procedures and operating parameters • Equipment and instrumentation components, purpose and operation • Basic operating principles of process control systems where relevant • Services used • Significance and method of monitoring control points within the process • Common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, specifically confined space entry • 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 • Sampling techniques where relevant • Preparing and making additions and finings where relevant

	• Cleaning and sanitising procedures where relevant • Inert gas handling procedures where relevant • Routine maintenance procedures where relevant
Underpinning Skills	Demonstrate skills to: • Access workplace information to identify pressing requirements • Select, fit and use personal protective clothing and/or equipment • Confirm supply of necessary product and materials and services • Liaise with other work areas • Confirm equipment status and condition. This may include checking for: ➢ exposed or reactive metal parts ➢ lubricating or hydraulic fluid leaks ➢ screen fit and condition ➢ bag and/or screw fit and condition ➢ receivable vessels and must processing operations (availability and schedule) ➢ setting speed of screw ➢ attaching hoses and/or opening valves ➢ setting pumps and lines from collection trays into receival tanks • Set up and start up the process • Monitor the process and equipment operation to identify out-of-specification results or non-compliance. This may involve monitoring: ➢ press program ➢ press pressure ➢ pressing effectiveness ➢ dosage of additions ➢ product loss ➢ dilution ➢ oxidation ➢ speed of screw ➢ free run quality and/or flow ➢ inclines quality and/or flow ➢ pressings quality and/or flow ➢ relevant product characteristics (marc moisture, solids content and press fractions) • Monitor supply and flow of product and materials to and from the process • Take corrective action in response to out-of-specification results or non-compliance • Report and/or record corrective action as required • Conduct product or batch changeovers

	• Follow confined space entry policies and procedures when required • Sort, collect, treat, recycle or dispose of waste • Shut down equipment in response to an emergency situation • Shut down equipment in response to routine shutdown requirements • Record workplace information • Maintain work area to meet housekeeping standards • Prepare equipment for cleaning. This may involve draining and/or dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning and sanitation • Identify, rectify and/or report environmental non-compliance • Take samples according to enterprise procedures • Prepare and make additions and finings according to enterprise procedures • Clean and sanitise equipment according to enterprise procedures • Handle inert gas according to enterprise procedures • Carry out routine maintenance according to enterprise procedures • Use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • Work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Drying Process**
Unit Code	**IND GRP2 14 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a drying process.

Elements	Performance Criteria
1. Prepare the drying process for operation	1.1. ***Materials*** are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Processing and operating parameters are entered as required to meet safety and production requirements. 1.4. ***Drying equipment*** performance is checked and adjusted as per the operating requirements. 1.5. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the drying process	2.1. The process is started and operated according to workplace ***policies and procedures***. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in ***equipment operation*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that specifications are met. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines. 2.8. Workplace records are maintained according to workplace recording requirements.
3. Shut down the drying process	3.1. The appropriate ***shut down procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	Range
Materials	May include but not limited to: • product to be dried and additives or drying agents as required, consistent with the provisions of the Ethiopian Food Safety Code
Drying equipment	May include but not limited to: • drying chambers • atomisers • heaters • coolers • air filters • fans • recovery cyclones • conveyors
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Shutdown procedures	May include but not limited to: • cleaning, (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Services	May include but not limited to: • power • fuel • steam • water • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on machinery used for drying • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of the drying process, including the stages that occur during the drying process and the effect on product structure of each stage • basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • quality characteristics to be achieved by the process • materials preparation requirements and effect of variation on the process • the flow of the drying process and the effect of outputs on downstream processes • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the drying process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the process and related control measures • common causes of variation, such as air temperature, air velocity, humidity and pressure, and corrective actions required if these are out-of-specification • OHS hazards and controls, including limitations of protective clothing and equipment relevant to the work process

	• requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the drying process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment • product/process changeover procedures and responsibilities where relevant • routine maintenance procedures where relevant • sampling and testing associated with process monitoring and control where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify processing requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • prepare materials as required • conduct pre-start checks, such as inspecting equipment condition (e.g. checking belts, chains, screens, seals and valves, and filters) to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: ➢ temperatures ➢ moisture content ➢ air flow ➢ throughput ➢ time/speed ➢ pressure/vacuum and product characteristics

	• monitor supply and flow of materials to and from the process • take corrective action in response to out-of-specification results or non-compliance • respond to and/or report equipment failure within level of responsibility • report and/or record corrective action as required • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • prepare equipment for cleaning • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • demonstrate product/batch changeovers (may not apply to some continuous operations) according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Cooling and Hardening Process**
Unit Code	**IND GRP2 15 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a process to cool and harden grain products to specification.

Elements	Performance Criteria
1. Prepare the cooling/ hardening process for operation	1.1. Materials are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. ***Cooling/ hardening equipment*** performance is checked and adjusted as per the operating requirements. 1.6. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the cooling/ hardening process	2.1. The process is started and operated according to workplace procedures. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in ***equipment operation*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that specifications are met. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines. 2.8. Workplace records are maintained according to workplace recording requirements.

3. Shut down the cooling/hardening process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	**Range**
Cooling**/**hardening equipment	May include but not limited to: • hardening tunnel • plate hardening machine • jacket holding tank • refrigeration • cooling towers
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Services	May include but not limited to: • power • steam • water • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on machinery used for cooling and hardening grain products

	• start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of the cooling/hardening process, including the principles of heat transfer and the difference between latent heat energy transfer and sensible heat energy transfer • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • the flow of the cooling/hardening process and the effect of product output on downstream processes • stages and changes which occur during cooling/hardening • quality characteristics to be achieved by cooling/hardening process • effect of in-feed characteristics on cooling/hardening process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • techniques used to monitor the cooling/hardening process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • common causes of variation and corrective action required • contamination/food safety risks associated with the process and related control measures • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage

	• isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the cooling/hardening process, including waste collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • cleaning and sanitation procedures where relevant • routine maintenance procedures where relevant • product/batch changeover procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify cooling/hardening processing requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust cooling/hardening process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: ➢ time/temperature ➢ flow rates ➢ recording devices/gauges ➢ pressure ➢ coolant circulation ➢ equipment performance • monitor supply and flow of materials to and from the cooling/hardening process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment

	• follow isolation and lock out/tag out procedures as required to take cooling/hardening process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • prepare cooling/hardening equipment for cleaning • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • conduct routine maintenance according to enterprise procedures • conduct product/batch changeover according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Operate a Packaging Process**
Unit Code	**IND GRP2 16 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a packaging process or sub-system.

Elements	Performance Criteria
1. Prepare the equipment and process for operation	1.1. ***Packaging*** components/consumables, materials and items to be packaged are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Operating parameters are entered as required to meet safety and production requirements. 1.5. Materials, product and packaging components or consumables are loaded or positioned as required to meet packaging requirements. 1.6. ***Equipment*** performance is checked and adjusted as per the operating requirements. 1.7. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the process	2.1. The process is started and operated according to workplace ***policies and procedures***. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in ***equipment operation*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that specifications are met. 2.5. Out-of-specification process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines.

	2.8. Workplace records are maintained according to workplace recording requirements.
3. Shut down the process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	**Range**
Packaging	May include but not limited to: • vacuum packing • Modified Atmosphere Packaging (MAP) • blister packaging or over wrapping
Typical equipment	May include but not limited to: • conveyor systems • filling • sealing • wrapping • thermo-form equipment • case packers • bundlers • ink jet coders • labellers • palletisers • shrink wrappers • strappers
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs)

	• specifications • production schedules and instructions • manufacturers' advice • standard forms and reports

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on machinery used for packing • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of the packaging process, including the purpose and characteristics required of packaging materials used and the principles of the packaging process used (where methods involve vacuum or map packaging, it includes an understanding of the effect of modified atmosphere on product shelf-life) • product and packaging coding requirements and related legal requirements, including product weight • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of processes supplying the packaging process and the effect of outputs on downstream processes • quality characteristics required of the packaging process, such as seal integrity requirements • effect of variation in inputs, such as packaging components/consumables, materials and/or services, on process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including restart procedures following a crash or jam up

	• typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the packaging process, such as visual inspecting, and measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks related to stages in the packaging process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the packaging process, including emergency and routine shutdowns and procedures to follow in the event of a power outage, and conducting basic equipment referencing where required • product/packaging changeover procedures and responsibilities • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • routine maintenance procedures where relevant • packaging integrity testing where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	• access workplace information to identify packaging requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary packaging components/consumables, materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, setting coders and printers, selecting appropriate equipment settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and correctly configured for packaging requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been completed, and confirming that all safety guards are in place and operational

	• start, operate, monitor and adjust packaging equipment to achieve required outcomes., such as packaging components/consumables and/or product, and monitoring control points (e.g. weights, codes, placement, glue temperatures, alignment and appearance, configuration and seal integrity) as required to confirm process remains within specification • monitor supply and flow of materials to and from the process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take packaging equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/process changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • integrity testing of packaging according to enterprise procedures • carry out routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Work with Temperature Controlled Stock**
Unit Code	**IND GRP2 17 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to store and retrieve temperature controlled stock from appropriate storage facilities.

Elements	Performance Criteria
1. Store stock to meet temperature control requirements	1.1. Goods requiring temperature control are identified as per operational requirements. 1.2. Goods are located in correct storage areas to meet storage temperature, stores handling and stock rotation requirements. 1.3. Stores information is recorded according to workplace requirements.
2. Monitor and maintain temperature of stock within specifications	2.1. Stock temperature is monitored to confirm temperature is within specified limits. 2.2. ***Temperature controlled storage facilities*** are monitored to confirm temperature is within storage zone limits. 2.3. Residence time in temperature controlled stores is monitored to meet stock control requirements. 2.4. Out-of-specification storage temperatures are identified and corrective action is taken.
3. Transfer temperature controlled stock	3.1. Goods are handled and transferred to maintain temperature control and meet ***stock*** rotation requirements. 3.2. Stores transfer ***information*** is recorded according to workplace reporting requirements. 3.3. Work is conducted in accordance with workplace environmental guidelines.

Variable	Range
Temperature controlled storage facilities	May include but not limited to: • any controlled temperature environment
Temperature controlled stock	May include but not limited to: • stock to be stored at a constant temperature and at different temperatures for given durations
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications

	• production schedules and instructions • manufacturers' advice • standard forms and reports
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • identify storage requirements of temperature controlled stock • monitor temperature of storage area and stock to ensure standards are maintained • handle and transfer stock to maintain required conditions • identify and act on non-conformances • complete workplace documentation • Apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Occupational Health and Safety (OHS) hazards and controls, including the purpose and limitations of protective clothing and equipment • temperature controlled storage facilities and capacities available in the work area, such as temperature zones within a single store and concepts (e.g. the Cold Chain compliance) as relevant to work requirements • temperature control requirements of stock handled in the work area, including acceptable temperature ranges and consequences of failing to meet these ranges, and where required requirements for gradual temperature change • stock handling procedures for receiving and locating stock within a store, including stock rotation and procedures for identifying, segregating, and disposing of damaged or potentially unsafe stock • stock handling procedures for transferring temperature controlled stock from a temperature controlled environment, including maximum duration stock can be held outside a controlled environment • food safety and quality consequences of stock temperature control requirements not being met

	• monitoring procedures and instrumentation, including use of thermometers or other temperature measuring instrumentation • notification, recording and reporting requirements • operating procedures for goods handling equipment as required • housekeeping requirements for work area • recording requirements and procedures
Underpinning Skills	Demonstrate skills to: • access workplace information to determine product handling and storage requirements • identify storage requirements including temperature limits, minimum duration at given temperatures, and segregation and co-storage requirements • identify temperature controlled storage facilities and temperature zones available • select, fit and use personal protective clothing and/or equipment • use materials handling equipment in a temperature controlled environment as required to undertake work functions • follow procedures to measure temperature of product, such as use of instrumentation as required to take core and surface temperatures • read instrumentation, such as temperature gauges, to monitor stores and zone temperatures • identify and report out-of-specification temperatures in product and storage facilities • take corrective action in response to out-of-specification temperatures including implementation of procedures to segregate damaged or potentially unsafe product • complete records of stock receival and transfer as required • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Conduct Routine Maintenance**
Unit Code	**IND GRP2 18 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to inspect equipment and carry out routine maintenance and/or adjustment using a limited range of hand tools.

Elements	Performance Criteria
1. Conduct routine inspection of plant and equipment	1.1. Equipment is inspected to identify signs of wear. 1.2. Nature of maintenance requirement is assessed.
2. Prepare to conduct routine maintenance	2.1. Maintenance task is assessed to determine tools and services required. 2.2. Equipment is prepared for maintenance. 2.3. Hand tools are selected according to task requirements. 2.4. Tools are checked before use and unsafe and/or faulty items are reported within standard procedures. 2.5. Maintenance is planned and scheduled in consultation with affected work areas to minimize disruption to production.
3. Carry out routine maintenance	3.1. ***Routine maintenance*** on equipment is carried out according to workplace procedures. 3.2. Maintenance activities are reported according to workplace reporting requirements.
4. Complete maintenance tasks	4.1. Equipment is returned to operating order. 4.2. ***Tools and materials*** are stored according to workplace procedure. 4.3. Relevant personnel are notified of maintenance completion. 4.4. Housekeeping standards are maintained. 4.5. Work is conducted in accordance with workplace environmental guidelines.

Variable	Range
Routine maintenance	May include but not limited to: • Routine maintenance is carried out according to company policies and procedures, licensing requirements, legislative requirements and industrial awards and agreements
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs)

	• specifications • production log books • routine maintenance schedules • manufacturers' advice • condition monitoring information
Typical routine maintenance tasks	May include but not limited to: • replacement of consumable components, such as O-rings, hoses, filters and other 'bolt-on/bolt-off' equipment parts • lubrication of equipment and maintenance of fluid levels • simple adjustment, alignment or attachment of equipment components, parts, guides and sensors • clearing blocked nozzles, such as glue nozzles • positioning/attaching equipment components • carrying out basic maintenance on video inkjet machines
Tools and materials	May include but not limited to: • a limited range of hand tools, such as spanners and screwdrivers, grease guns, Allen keys and measuring and alignment equipment Materials may include: • lubricants and consumables for video inkjet printers
Inspections of equipment	May include but not limited to: • informally or as part of a structured program associated with proactive maintenance

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • identify routine maintenance tasks for machine or equipment • monitor operation and identify need for maintenance tasks • schedule maintenance tasks and communicate requirements with affected personnel • select and use appropriate hand tools to undertake routine maintenance • assess readiness for returning machine or equipment to operation or referring for further attention • complete maintenance documentation • apply safe work practices and identify OHS hazards and controls.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • system in place to manage maintenance of plant and equipment in the workplace, including programs, such as responsive, preventative and proactive maintenance as appropriate • responsibilities for participating in the maintenance program, including scope of operator responsibilities, roles of others involved in plant and equipment maintenance and procedures

	for raising maintenance orders where requirements are outside operator role • basic operating principles of equipment to be maintained • signs and symptoms of faulty equipment and early warning signs of potential problems • basic checks used to confirm the nature of maintenance requirements, including distinguishing between mechanical and electrical faults and identifying probable causes or conditions that may increase maintenance requirements of equipment used • procedures for issuing, maintaining and storing tools used • safe use of hand tools and measuring instrumentation relevant to maintenance responsibilities • lubrication requirements, including requirements to use food grade lubricants as required and consequences of using incorrect type or amount of lubricants • safe work procedures, including appropriate signage of maintenance activities as required, use of appropriate personal protective clothing and equipment, and awareness of safety hazards and controls relating to maintenance tasks • methods used to render equipment safe to work on or clean including lock out/tag out and isolation procedures (in some cases this may involve liaising with other maintenance operators) • procedures and inspections to be carried out to confirm that equipment is in operating order and all parts are accounted for • food safety risks arising from poor personal hygiene, cleaning and housekeeping practices and procedures associated with routine maintenance • maintenance planning, scheduling and recording procedures
Underpinning Skills	Demonstrate skills to: • access workplace information such as the equipment history, faults or difficulties • select, fit and use personal protective clothing and/or equipment • inspect equipment for signs of wear, such as visual inspections to detect leaks, listening for unusual noises and/or vibrations • identify and describe maintenance requirements, including the ability to assess the urgency of the maintenance issue, recognise common types of maintenance requirements and run basic checks according to workplace procedures to confirm the need for and type of maintenance support required • take action to address maintenance requirements, such as carrying out routine maintenance within level of skill and responsibility and/or reporting outstanding maintenance to

	appropriate personnel using the required forms or request system • plan and schedule maintenance within level of responsibility, such as consulting affected personnel and/or work areas on timing and notifying of maintenance progress • prepare equipment and work area for routine maintenance, including cleaning equipment prior to carrying out maintenance and confirming that equipment is safe to work on, and simple isolation or tag out of equipment as required by workplace procedure • select and use hand tools as required to carry out maintenance task • select relevant parts and materials as required to carry out maintenance task • carry out routine maintenance tasks according to workplace procedures • on completion of maintenance tasks, return equipment to operational order, including confirming that all equipment parts, nuts and bolts are accounted for and correctly tightened, and where required, cleaning and sanitising equipment • store tools in designated location, including basic tool maintenance, such as oiling • complete records of maintenance as required • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Implement the Food Safety Program and Procedures**
Unit Code	**IND GRP2 19 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required for maintaining personal hygiene and to conduct food handling, housekeeping and waste disposal related to work tasks and responsibilities where work involves operation of production and/or packaging equipment and processes.

Elements	Performance Criteria
1. Implement the food safety program	1.1. ***Food handling*** requirements are identified. 1.2. Food handling is carried out according to the ***food safety program***. 1.3. ***Food safety hazards*** are controlled as required by the food safety program. 1.4. Where food safety control requirements are not met, the incident is promptly reported and corrective action is taken. 1.5. Food safety information is recorded to meet requirements of the food safety program. 1.6. The workplace is maintained in a clean and tidy order to meet workplace standards. 1.7. Work is conducted in accordance with workplace environmental guidelines.
2. Participate in maintaining and improving food safety	2.1. Work area, materials, equipment and product are routinely ***monitored*** to ensure compliance with food safety requirements. 2.2. Processes, practices or conditions which could result in a ***food safety breach*** are identified and reported according to workplace reporting requirements. 2.3. Corrective action is taken in accordance with the food safety program. 2.4. Food safety issues are raised with designated personnel.
3. Comply with personal hygiene standards	3.1. Personal ***hygiene*** meets the requirements of the food safety program. 3.2. Health conditions and/or illness are reported as required by the food safety program. 3.3. Clothing and footwear worn is appropriate for the food handling task and meets the requirements of the food safety program.

	3.4. Movement around the workplace complies with the food safety program.

Variable	Range
A food safety program	May include but not limited to: • A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
Workplace information	May include but not limited to: • food safety program • Standard Operating Procedures (SOPs) • specifications • log sheets • written or verbal instruction
Food handling	May include but not limited to: • food receipt and storage • food preparation • cooking, holding, cooling, chilling and reheating • packaging, disposal
Products/materials handled and stored	May include but not limited to: • raw materials • ingredients • consumables • part-processed product • finished product • cleaning materials
Examples of a breach of food safety procedures	May include but not limited to: • failure to check delivery temperatures of potentially hazardous chilled food • failure to place temperature-sensitive food in temperature controlled storage conditions promptly • failure to wash hands when required • use of cloths for unsuitable purposes
Responsibility for monitoring food safety	May include but not limited to: • Responsibility for monitoring food safety, identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace

Monitoring	May include but not limited to: • taking temperatures • collecting samples • conducting visual inspections • conducting other tests as required
Food safety hazard	May include but not limited to: • A food safety hazard is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect
Hygiene requirements	May include but not limited to: • Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in state or territory legislation/regulations
Reporting of health conditions and illnesses requirements	May include but not limited to: • Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in state or territory legislation/regulations
Appropriate clothing and footwear	depends on work requirements. It should be designed to ensure that the body and clothing itself does not contaminate food or surfaces likely to come into contact with food. Examples of clothing designed to prevent contamination by the body include: • purpose designed overalls or uniforms • hair-nets • beard snoods • gloves and overshoes

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • identify own responsibilities with regard to food safety • identify food safety risks in the workplace and the control measures used to manage them • apply control measures in own work • monitor compliance with food safety standards • identify and act on non-compliances and participate in improving safety • maintain required standards of personal hygiene • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • Apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • sources of information and expertise on procedures and responsibilities for food safety relating to own work

	• basic concepts of HACCP-based food safety, including identification of hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met • food safety management arrangements in the workplace, including awareness of food safety legislation, workplace policies and procedures to implement responsibilities, understanding the relationship between the quality system and food safety program, personnel responsible for developing and implementing the food safety program, the role of internal and external auditors as appropriate, procedures followed to investigate contamination events, and performance improvement processes • awareness of common microbiological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence • basic understanding of the properties, handling and storage requirements of ingredients, materials and products handled and used • suitable standard for materials, measuring devices, equipment and utensils used in the work area • food safety requirements related to work responsibilities, including personal hygiene, requirements and procedures to report illness and safe food handling practices for own work • methods used to monitor that food safety is under control, including the purpose of sampling and taking measurements, such as temperature and pH, and conducting inspections and tests • action required in the event of non-compliance (corrective action is typically described in the food safety program and/or related workplace information) • purpose of keeping records and the recording requirements of the food safety program • methods used in the workplace to isolate or quarantine food which may be unsafe • product and ingredient traceability procedures, such as product recall where required by work responsibilities • clothing and footwear requirements for working in and/or moving between food handling areas • personal clothing maintenance, laundering and storage requirements • appropriate bandages and dressings to be used when undertaking food handling

	• housekeeping requirements and responsibilities relating to own work, and use and storage of housekeeping/cleaning equipment where relevant • procedures to follow in the event of pest sighting or discovery of infestation • purpose and importance of cleaning and sanitation procedures • waste collection, recycling and handling procedures relevant to own work responsibilities • cleaning and sanitation procedures where relevant • impact of rework handling/addition on food safety where relevant • sampling and test methods where relevant
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Participate in OHS Processes**
Unit Code	**IND GRP2 20 0613**
Unit Descriptor	This unit of competency specifies the workplace performance required for an entry level employee to participate in Occupational Health and Safety (OHS) processes in the workplace, in order to ensure their own health and safety at work, as well as that of those in the workplace who may be affected by their actions.

Elements	Performance Criteria
1. Plan and prepare to work safely	1.1. ***Hazards*** in the work area are identified and action taken to control ***risks*** for those hazards the employee can correct. 1.2. Hazards and inadequacies in control measures the employee cannot correct are reported in accordance with organization procedures. 1.3. Pre-start checks are carried out as required according to work procedures.
2. Conduct work safely	2.1. ***Personal protective equipment*** is used correctly and maintained when required. 2.2. Work procedures and workplace instructions for ensuring safety are followed when planning and conducting work. 2.3. ***Incidents*** and injuries to are reported to designated personnel. 2.4. ***OHS housekeeping*** is undertaken in work area.
3. Participate in OHS consultative activities	3.1. Knowledge of roles and responsibilities of OHS representatives and OHS committees is applied. 3.2. Constructive contribution to workplace meetings, workplace inspections or other OHS consultative activities is made. 3.3. OHS issues are raised with ***designated personnel*** according to organization procedures. 3.4. Input to improve workplace OHS systems and processes is provided to eliminate hazards or reduce risk according to organization procedures.
4. Follow emergency response procedures	4.1. ***Emergency situations*** are identified and reported. 4.2. Organization procedures for responding to emergencies are followed.

Variable	Range
Hazards	May include but not limited to: • a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these
Specific hazards	May include but not limited to: • chemicals • bodily fluids • sharps • noise • manual handling • work posture • underfoot hazards • moving parts of machinery • cytotoxic medicines and waste
Other workplace hazards	May include but not limited to: • occupational violence • stress • fatigue • bullying
Risks	May include but not limited to: • the probability and consequences of injury, illness or damage resulting from exposure to a hazard
Residual risk	May include but not limited to: • the risk which remains after controls have been implemented
Personal protective equipment	equipment worn by a person to provide protection from hazards, by providing a physical barrier between the person and the hazard and may include: • head protection • face and eye protection • respiratory protection • hearing protection • hand protection • clothing and footwear
Incidents	May include but not limited to: • any event that has caused, or has the potential for, injury, ill-health or damage
Designated personnel	May include but not limited to: • team leaders • supervisors • OHS representatives • OHS committee members • managers • organisation OHS personnel

	• other persons designated by the organisation • employers in office based practice
OHS housekeeping	May include but not limited to: • workplace and personal routines designed to improve health and safety, for example, cleaning up spills, keeping walkways, exits and traffic areas clear
Emergency situations	any abnormal or sudden event that requires immediate action, such as: • serious injury events • events requiring evacuation • fires and explosions • hazardous substance and chemical spills • explosion and bomb alerts • security emergencies, such as armed robberies, intruders and disturbed persons • internal emergencies, such as loss of power or water supply and structural collapse • external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organization

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • in an actual or simulated workplace context involving relevant work processes • to their own health and safety within their work area • to that of others who may be affected by their actions • A candidate must also be able to provide evidence of participating in workplace OHS processes • Evidence gathered by an assessor to determine competence will include practical demonstration of competence, including: ➢ workplace demonstration, simulation exercise, scenario or role play • indirect evidence from workplace supervisor reports and workplace documentation
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • applicable commonwealth, state or territory OHS legislation, regulations, standards, codes of practice and industry standards/guidance notes relevant to own work, role and responsibilities • safety signs and their meanings, including signs for: ➢ personal protective equipment ➢ emergency equipment ➢ dangerous goods class signs ➢ specific hazards, such as sharps and radiation • legal rights and responsibilities of the workplace parties

	• the difference between hazard and risk • nature of common workplace hazards, such as chemicals, bodily fluids, sharps, noise, manual handling, work postures, underfoot hazards and moving parts of machinery • standard emergency signals, alarms and required responses • the elements within the hierarchy of control • safety measures related to common workplace hazards • sources of OHS information in the workplace • the roles and responsibilities of employees, supervisors and managers in the workplace • roles and responsibilities of OHS representatives, OHS committees and employers • workplace specific information, including: • hazards of the particular work environment • potential emergencies relevant to the workplace • designated person for raising OHS issues • organisation and work procedures particularly those related to performance of own work, specific hazards and risk control, reporting of hazards, incidents and injuries, consultation, use of personal protective equipment and emergency response • potential emergency situations, alarms and signals, and required response
Underpinning Skills	Demonstrate skills to: • follow clear, logical verbal or clear, logical Plain English written instructions • interpret selected pictorial/graphical and written signs/instructions • clarify meaning with peers and supervisors • give accurate verbal or written descriptions of incidents or hazards • participate in OHS activities, including inspections, meetings and risk assessments
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Provide Basic Emergency Life Support**
Unit Code	**IND GRP2 21 0613**
Unit Descriptor	This unit of competency describes the skills and knowledge required to recognize and respond to life threatening emergencies using basic life support measures only.

Elements	Performance Criteria
1. Respond in an emergency situation	1.1 Recognise emergency situation and identify ***hazards*** to health and safety of self and others. 1.2 Minimise immediate risk to health and safety of self, casualty and others by isolating any hazard(s). 1.3 Assess casualty and identify injuries, illnesses and conditions. 1.4 Assess the need for assistance.
2. Apply identified first aid procedures	2.1 Reassure casualty in a caring and calm manner and make comfortable using available resources. 2.2 Determine and explain the nature of ***casualty's injury/condition*** and relevant first aid procedures to provide comfort. 2.3 Seek consent from casualty or significant other prior to applying first aid management. 2.4 Respond to the casualty in a culturally aware, sensitive and respectful manner 2.5 Use ***identified first aid procedures*** as required in accordance with established first aid principles, policies and procedures, Guidelines and/or state/territory regulations, legislation and policies and industry requirements. 2.6 Use safe manual handling techniques as required.
3. Communicate details of the incident	3.1 Request ambulance support and/or appropriate medical assistance according to relevant circumstances and using available means of communication. 3.2 Accurately convey assessment of casualty's condition and first aid procedures undertaken to emergency services/relieving personnel. 3.3 Calmly provide information to reassure casualty, adopting a communication style to match the casualty's level of consciousness. 3.4 Provide reports, where applicable, in a timely manner, presenting all relevant facts according to established procedures.

	3.5 Maintain confidentiality of records and information in line with privacy principles and statutory and/or organisation policies.
4. Evaluate own performance	4.1 Seek feedback from ***appropriate clinical expert***. 4.2 Recognise the possible psychological impacts on rescuers of involvement in critical incidents. 4.3 Participate in debriefing/evaluation as appropriate to improve future response and address individual needs.

Variable	**Range**
Condition of the casualty	May include but not limited to: • Severe bleeding • Absence of signs of life: ➢ unconscious ➢ unresponsive ➢ not moving ➢ not breathing normally • Choking/airway obstruction • Severe allergic reaction
Identified first aid procedures	May include but not limited to: • Cardiopulmonary Resuscitation (CPR) • Control severe bleeding • Airway management • Provide assistance with self-administered medications, such as auto-injector, puffer/inhaler in line with state/territory regulations, legislation and policies and any available medical/pharmaceutical instructions • Care of the unconscious person
Resources and equipment may include*:*	May include but not limited to: • First aid kit • Resuscitation mask or barrier • Casualty's medication • Manikin • Automated External Defibrillator (if available) • Auto-injector • Puffer/inhaler
A hazard is*:*	May include but not limited to: • A source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these
Appropriate clinical expert may include*:*	• Supervisor/manager • Ambulance officer/paramedic • Other medical/health worker

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • The individual being assessed must provide evidence of specified essential knowledge as well as skills • Competence should be demonstrated working individually and, where appropriate, as part of a first aid team. • Consistency of performance should be demonstrated over the required range of situations relevant to the workplace or community setting • Currency of CPR knowledge and skills is to be demonstrated in line with state/territory regulations, legislation and policies, and industry guidelines
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Awareness of stress management techniques and available support • Basic anatomy and physiology relating to: absence of signs of life: ➢ unconscious ➢ unresponsive ➢ not moving ➢ not breathing normally ➢ choking/airway obstruction ➢ severe bleeding ➢ shock • Chain of survival • Duty of care requirements • First aid procedures for: ➢ airway management ➢ bleeding control ➢ care of unconscious ➢ casualty with no signs of life ➢ chest pain ➢ infection control as it relates to standard precautions ➢ respiratory distress, including asthma ➢ severe allergic reaction ➢ shock • How to access emergency response support services/personnel • Need to be culturally aware, sensitive and respectful • Own skills and limitations • Privacy and confidentiality requirements • Relevant workplace hazards • State/territory regulations, legislation and policies, ARC Guidelines and accepted industry practice relating to currency of skill and knowledge

	• Understanding of the use of an Automated External Defibrillator (AED), including when to use and when not to
Underpinning Skills	Demonstrate skills to: • Assess vital signs and responses of casualty • Call an ambulance and/or medical assistance, according to circumstances and report casualty's condition • Demonstrate first aid casualty management principles: ➢ assess and minimize danger ➢ check for response ➢ maintain casualty's airway, breathing and circulation • Demonstrate: ➢ consideration of the welfare of the casualty ➢ correct procedures for CPR on a resuscitation manikin ➢ implementation of standard precautions ➢ safe manual handling of casualty • Identify and minimise hazards to health and safety of self and others in the immediate workplace or community environment • Plan an appropriate first aid response in line with established first aid principles, policies and procedures, Guidelines and/or state/territory regulations, legislation and policies and industry requirements and respond appropriately to contingencies in line with own level of skills and knowledge • Report details of emergency incident and first aid provided
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Apply Quality Systems and Procedures**
Unit Code	**IND GRP2 22 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to apply quality principles and system requirements when carrying out work responsibilities where work involves the operation of packaging and/or processing equipment. This unit has application in a food processing environment. It typically targets the production worker responsible for applying quality standards to work operations.

Elements	Performance Criteria
1.Monitor quality of work outcome	1.1. Quality requirements are identified as per organizational specifications. 1.2. Inputs are inspected to confirm capability to meet quality requirements. 1.3. Work is conducted to produce required outcomes. 1.4. Work processes are monitored to confirm quality of output and/or service. 1.5. Processes are adjusted to maintain outputs within specification.
2.Participate in maintaining and improving quality at work	2.1. Work area, materials, processes and product are routinely monitored to ensure compliance with quality requirements. 2.2. Work is conducted in accordance with workplace environmental guidelines, ***policies and procedures***. 2.3. Non-conformance in inputs, process, product and/or service is identified and reported according to workplace reporting requirements. 2.4. Corrective action is taken within level of responsibility, to maintain quality standards. 2.5. Quality issues are raised with designated personnel.

Variable	Range
Policies and procedures	May include but not limited to: • Work is carried out in accordance with company policies and procedures, licensing and regulatory requirements, legislative requirements and industrial awards and agreements
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs)

	• quality specifications • food safety plans • log sheets • standard forms and reports
Control points	refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) as well as quality and regulatory control points
Monitoring quality	includes observation and other checks, tests or inspections to confirm that the work output meets defined specifications or quality standards. This can include the use of data collection and analysis tools, such as control charts. Tests or inspections may be carried out by the operator, a third party or be automated
Reporting and recording systems	May include but not limited to: • verbal • written • electronic and screen-based
Participating in improvement	May include but not limited to: • participation in structured improvement programs • one-off projects • day-to-day problem solving

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge in: • identify quality requirements and key elements of the quality system • conduct work according to quality standards • monitor quality and identify and act on non-compliances • participate in identifying quality system improvements.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • quality policy, procedures and responsibilities • quality system used in the workplace, including the relationship between the quality system and food safety program, sources of information on quality requirements, the role of internal and external auditors, as appropriate, and performance improvement processes • basic concepts of quality assurance including hazards, risk assessment and control methods • requirements of internal and external customers • control points for own work, including the purpose of the control point, the risk if not controlled and the method of control used • monitoring, testing and inspection procedures relating to process control requirements • scope to correct/control variation within equipment and process capacity parameters

	• evidence of out-of-specification or unacceptable performance • procedures for responding to out-of-specification or unacceptable performance/outcomes, including procedures for identifying or isolating materials or product of unacceptable quality • systems used to trace product ingredients as relevant to own work • requirements to report and record quality information • sampling and test methods and procedures where relevant
Underpinning Skills	Demonstrates skills to: • access and apply workplace information on quality requirements for own work • identify control points or inspection points for own work and related methods used to monitor quality • maintain quality of own work, including relevant checks and inspections where required in order to monitor control points and check and inspect equipment, materials, product, packaging consumables, processing conditions and service standards relevant to own work • identify and correct variation within boundaries of work role, and use quality data where required • determine when and how to make adjustments to maintain output within specified parameters • identify and respond to out-of-specification or unacceptable inputs and/or outputs • record quality data in required format • conduct tests related to work responsibilities according to enterprise procedures • collect samples as required by sampling regime according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Participate In Workplace Communication**
Unit Code	**IND GRP2 23 0613**
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

Elements	Performance Criteria
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from ***appropriate sources***. 1.2 Effective questioning, active listening and speaking skills are used to gather and convey information. 1.3 Appropriate ***medium*** is used to transfer information and ideas. 1.4 Appropriate non- verbal communication is used. 1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed. 1.6 Defined workplace procedures for the location and ***storage*** of information are used. 1.7 Personal interaction is carried out clearly and concisely.
2. Participate in workplace meetings and discussions	2.1 Team meetings are attended on time. 2.2 Own opinions are clearly expressed and those of others are listened to without interruption. 2.3 Meeting inputs are consistent with the meeting purpose and established ***protocols***. 2.4 ***Workplace interactions*** are conducted in a courteous manner. 2.5 Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to. 2.6 Meetings outcomes are interpreted and implemented.
3. Complete relevant work related documents	3.1 Range of ***forms*** relating to conditions of employment is completed accurately and legibly. 3.2 Workplace data is recorded on standard workplace forms and documents. 3.3 Basic mathematical processes are used for routine calculations. 3.4 Errors in recording information on forms/ documents are identified and properly acted upon.

	3.5 Reporting requirements to supervisor are completed according to organizational guidelines.

Variable	Range
Appropriate sources	• Team members • Suppliers • Trade personnel • Local government • Industry bodies
Medium	• Memorandum • Circular • Notice • Information discussion • Follow-up or verbal instructions • Face to face communication
Storage	• Manual filing system • Computer-based filing system
Forms	• Personnel forms, telephone message forms, safety reports
Workplace interactions	• Face to face • Telephone • Electronic and two way radio • Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams
Protocols	• Observing meeting • Compliance with meeting decisions • Obeying meeting instructions

Evidence Guide	
Critical Aspects of Competency	Assessment requires evidence that the candidate to: • Prepare written communication following standard format of the organization • Access information using communication equipment • Make use of relevant terms as an aid to transfer information effectively • Convey information effectively adopting the formal or informal communication
Underpinning Knowledge and Attitudes	• Effective communication • Different modes of communication • Written communication • Organizational policies • Communication procedures and systems • Technology relevant to the enterprise and the individual's work responsibilities

Underpinning Skills	• Follow simple spoken language • Perform routine workplace duties following simple written notices • Participate in workplace meetings and discussions • Complete work related documents • Estimate, calculate and record routine workplace measures • Basic mathematical processes of addition, subtraction, division and multiplication • Ability to relate to people of social range in the workplace • Gather and provide information in response to workplace Requirements
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain processing Level II	
Unit Title	**Work In Team Environment**
Unit Code	**IND GRP2 24 0613**
Unit Descriptor	This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

Elements	Performance Criteria
1. Describe team role and scope	1.1 The ***role and objective of the team*** is identified from available ***sources of information***. 1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources.
2. Identify own role and responsibility within team	2.1 Individual role and responsibilities within the team environment are identified. 2.2 Roles and responsibility of other team members are identified and recognized. 2.3 Reporting relationships within team and external to team are identified.
3. Work as a team member	3.1 Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives. 3.2 Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and ***workplace context***. 3.3 Observed protocols in reporting using standard operating procedures. 3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

Variable	Range
Role and objective of team	• Work activities in a team environment with enterprise or specific sector • Limited discretion, initiative and judgment maybe demonstrated on the job, either individually or in a team environment
Sources of information	• Standard operating and/or other workplace procedures • Job procedures • Machine/equipment manufacturer's specifications and instructions

	• Organizational or external personnel • Client/supplier instructions • Quality standards • OHS and environmental standards
Workplace context	• Work procedures and practices • Conditions of work environments • Legislation and industrial agreements • Standard work practice including the storage, safe handling and disposal of chemicals • Safety, environmental, housekeeping and quality guidelines

Evidence Guide	
Critical aspects of competence	Assessment requires evidence that the candidate to: • Operate in a team to complete workplace activity • Work effectively with others • Convey information in written or oral form • Select and use appropriate workplace language • Follow designated work plan for the job • Report outcomes
Underpinning Knowledge and Attitude	• Communication process • Team structure • Team roles • Group planning and decision making
Underpinning Skills	• Communicate appropriately, consistent with the culture of the workplace
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Develop Business Practice**
Unit Code	**IND GRP2 25 0613**
Unit Descriptor	This unit specifies the outcomes required to establish a business operation from a planned concept. It includes researching the feasibility of establishing a business operation, planning the setting up of the business, implementing the plan and reviewing operations once commenced.

Elements	Performance Criteria
1. Identify business opportunity	1.1 ***Business opportunities*** are investigated and identified. 1.2 Feasibility study is undertaken to determine likely ***business viability***. 1.3 Market research on product or service is undertaken. 1.4 Assistance with feasibility study of ***specialist and relevant parties*** is sought as required. 1.5 Impact of emerging or changing technology including e-commerce, on business operations is evaluated. 1.6 Practicability of business opportunity assessed in line with perceived risks, returns sought and resources available. 1.7 Business plan for operation is completed.
2. Identify personal business skills	2.1 Financial and business skills available are identified and taken into account when business opportunities are researched. 2.2 ***Personal skills/attributes*** are assessed and matched against those perceived as necessary for a particular business opportunity. 2.3 ***Business risks*** are identified and assessed according to resources available and personal preferences.
3. Plan for establishment of business operation	3.1 Business structure and operations are determined and documented. 3.2 Procedures to guide operations are developed and documented. 3.3 Financial backing for business operation is secured. 3.4 Business legal and regulatory requirements are identified and complied. 3.5 ***Human and physical resources*** required to commence business operation are determined. 3.6 Recruitment strategies are developed and implemented.

4. Implement establishment plan	4.1 Marketing of business operation is undertaken. 4.2 Physical and human resources to implement business operation are obtained. 4.3 ***Operational unit*** to support and coordinate business operation is established. 4.4 Monitoring process for managing operation is developed and implemented. 4.5 ***Legal documents*** are carefully maintained and relevant records are kept and updated to ensure validity and accessibility. 4.6 Contractual procurement rights for goods and services including ***contracts with relevant people****,* negotiated and secured as required in accordance with the business plan. 4.7 Options for leasing/ownership of business premises identified and contractual arrangements completed in accordance with the business plan.
5. Review implementation process	5.1 Review process for implementation of business operation is developed and implemented. 5.2 Improvements in business operation and associated management process are identified. 5.3 Identified improvements are implemented and monitored for effectiveness.

Variable	**Range**
Business opportunities	May include but not limited to: • expected financial viability • skills of operator • amount and types of finance available • returns expected or required by owners • likely return on investment • finance required and lifestyle issues
Business viability	May include but not limited to: • opportunities available • market competition • timing/ cyclical considerations • skills available • resources available • location and/ or premises available • risk related to a particular business opportunity, especially • in regard to Occupational Health and Safety and • environmental considerations

Specialist and relevant parties	May include but not limited to: • Chamber of commerce • Financial planners and financial institution representatives, business planning specialists and marketing specialists • accountants • lawyers and providers of legal advice • government agencies • industry/trade associations • online gateways • business brokers/business consultants
Human and physical resources	May include but not limited to: • software and hardware • office premises • communications equipment • specialist services through outsourcing, contracting and • consultancy • staff • vehicles
Personal skills/attributes may include:	May include but not limited to: • technical and/ or specialist skills • business knowledge and skills • entrepreneurship • willingness to take risks
Business risks may be affected by and may include but are not restricted to:	May include but not limited to: • occupational health and safety and environmental • considerations • relevant legislative requirements • security of investment • market competition • security of premises/ location • supply and demand • resources available
Resources may include:	May include but not limited to: • staff • money • time • equipment • space
Operational unit refers to:	May include but not limited to: • office location staffed with required personnel and equipped to service and support business • home-based site or other location such as leased or owned property

Legal documents may include:	May include but not limited to: • partnership agreements, constitution documents, statutory books for companies (Register of Members, Register of Directors and Minute Books), Certificate of Incorporation, Franchise Agreements and financial documentation, appropriate software for financial records • recordkeeping including personnel, financial, taxation, OHS and environmental
Contracts with relevant people may include:	owners, suppliers, employees, landlords, agents, distributors, customers or any person with whom the business has, or seeks to have, a performance-based relationship

Evidence Guide	
Critical Aspects of Competence	A person must be able to provide evidence: • that a business operation has been planned and implemented from initial research into feasibility of the business and completion of the plan, through to implementing the plan and commencing operations • the ability to evaluate the results of research and assess the likely viability and practicability of a business opportunity, taking into account the current business/market climate and resources available
Underpinning Knowledge and Attitudes	• Federal and regional government legislative requirements affecting business operations, especially in regard to Occupational Health and Safety (OHS), Equal Employment Opportunity (EEO), industrial relations and anti-discrimination • Technical or specialist skills relevant to the business operation • Financing options • Business systems and operations • Relevant marketing, management, sales and financial concepts • Methods for researching business opportunities • Principles of risk management relevant to the business • Methods of identifying relevant specialist services to complement the business • Forms and administrative systems • Services available and charges • Planning and control systems (sales, • Advertising and promotion, distribution and logistics • Financial recording systems • Legal rights and responsibilities • Record keeping duties • Operational factors relating to the business (provision of professional services, products)
Underpinning Skills	• Literacy skills to interpret legal requirements, company policies and procedures and immediate, day-to-day demands

	• Marketing skills • Business planning skills • Entrepreneurial skills • Problem-solving skills • OHS skills • Time management skills • Belief in services and products offered by the business • Communication skills including questioning, clarifying, reporting, and giving and receiving constructive feedback • Technical and analytical skills to interpret business documents, reports and financial statements and projections • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities • Problem solving skills to develop contingency plans • Using computers and software packages to record and manage data and to produce reports • Literacy skills to enable interpretation of business information, numeracy skills for data analysis to aid research • Research skills to identify a business opportunity and to conduct a feasibility study • Analytical skills to assess personal attributes and to identify business risks • Observation skills for identifying appropriate people, resources and to monitor work
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Grain Processing Level II	
Unit Title	**Standardize and Sustain 3S**
Unit Code	**IND GRP2 26 0613**
Unit Descriptor	This unit of competence covers the knowledge, skills and attitudes required by worker to standardize and sustain 3S to his/her workplace. It covers responsibility for the day- to-day operations of the workplace and ensuring that continuous improvements of Kaizen elements are initiated and institutionalized.

Elements	Performance Criteria
1. Prepare for work.	1.1 Work instructions are used to determine job requirements, including method, material and equipment. 1.2 Job specifications are read and interpreted following working manual. 1.3 ***OHS requirements***, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work. 1.4 ***Safety equipment and tools*** are identified and checked for safe and effective operation. 1.5 ***Tools and equipment*** are prepared and used to implement 3S.
2. Standardize 3S.	2.1 Plan is prepared and used to standardize 3S activities. 2.2 ***Tools and techniques*** to standardize 3S are prepared and implemented based on ***relevant procedures***. 2.3 Checklists are followed for standardize activities and ***reported*** to ***relevant personnel***. 2.4 The workplace is kept to the specified standard. 2.5 Problems are avoided by standardizing activities.
3. Sustain 3S.	3.1 Plan is prepared and followed to standardize 3S activities. 3.2 ***Tools and techniques*** to sustain 3S are discussed, prepared and implemented based on relevant procedures. 3.3 Workplace is inspected regularly for compliance to specified standard and sustainability of 3S techniques. 3.4 Workplace is cleaned up after completion of job and before commencing next job or end of shift. 3.5 Situations are identified where compliance to standards is unlikely and actions specified in procedures are taken. 3.6 Improvements are recommended to lift the level of compliance in the workplace.

	3.7 Checklists are followed to sustain activities and reported to relevant personnel. 3.8 Problems are avoided by sustaining activities.

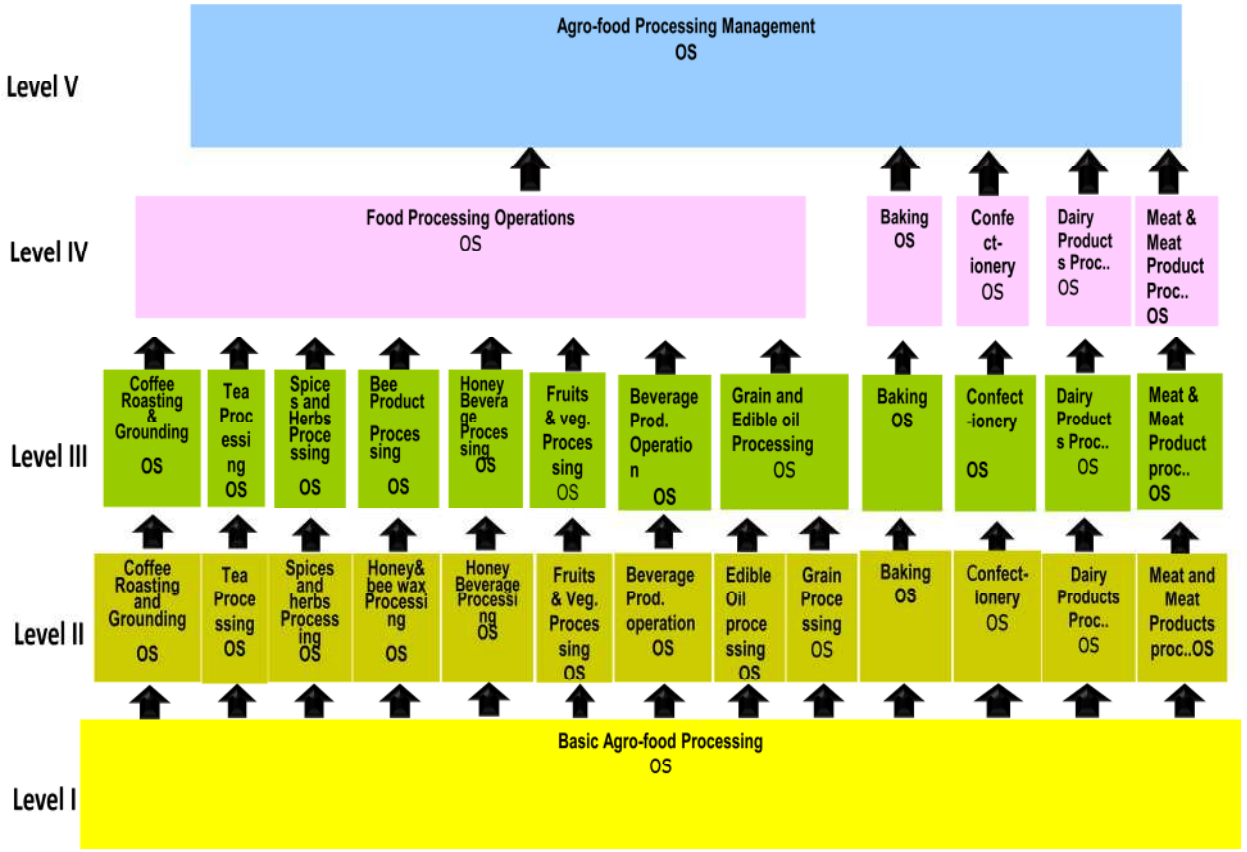
Variable	Range
OHS requirements	May include but not limited to: • Are to be in accordance with legislation/ regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances. • Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices. • Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with workplace organization. • Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation.
Safety equipment and tools	May include but not limited to: • dust masks / goggles • glove • working cloth • first aid • safety shoes
Tools and equipment	May include but not limited to: • paint • hook • sticker • signboard • nails • shelves • chip wood • sponge • broom • pencil • shadow board/ tools board
Tools and techniques	May include but not limited to: • 5S Job Cycle Charts • Visual 5S • The Five Minute 5S

	• Standardization level checklist • 5S checklist • The five Whys and one How approach(5W1H) • Suspension • Incorporation • Use Elimination
Relevant procedures	May include but not limited to: • Assign 3S responsibilities • Integrate 3S duties into regular work duties • Check on 3S maintenance level • OHS measures such as signage, symbols / coding and labeling of workplace and equipment • Creating conditions to sustain your plans • Roles in implementation
Reporting	May include but not limited to: • verbal responses • data entry into enterprise database • brief written reports using enterprise report formats
Relevant personnel	May include but not limited to: • supervisors, managers and quality managers • administrative, laboratory and production personnel • internal/external contractors, customers and suppliers
Tools and techniques	May include but not limited to: • 5S slogans • 5S posters • 5S photo exhibits and storyboards • 5S newsletter • 5S maps • 5S pocket manuals • 5S department/benchmarking tours • 5S months • 5S audit • Awarding system • Big cleaning day • Patrolling system may include: ➢ Top management Patrol ➢ 5S Committee members and Promotion office Patrol ➢ Mutual patrol ➢ Self-patrol ➢ Checklist and Camera patrols

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • Discuss the relationship between Kaizen elements.

	• Standardize and sustain 3S activities by applying appropriate tools and techniques.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Elements of Kaizen • Ways to improve Kaizen elements • Benefits of improving kaizen elements • Relationship between Kaizen elements • The fourth pillar of 5S • Benefits of standardizing and sustaining 3S • Procedures for standardizing and sustaining 3S activities • Tools and techniques to sustain 3S • Relevant Occupational Health and Safety (OHS) and environment requirements • Plan and report • Method of communication
Underpinning Skills	Demonstrates skills of: • improving Kaizen elements by applying 5S • standardizing and sustaining procedures and techniques to avoid problems • technical drawing • procedures to standardizing 3S activities • analyzing and preparing shop layout of the workplace • standardizing and sustaining checklists • preparing and implementing tools and techniques to sustain 3S • working with others • reading and interpreting documents • observing situations • solving problems by applying 5S • communication skills • preparing labels, slogans, etc. • gathering evidence by using different means • using Kaizen board properly in accordance the procedure • reporting activities and results using report formats
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Sector: Industry
Sub- sector: Agro-food Processing



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This occupational standard was developed on the date of June 25, 2013 at Debre Zeyit Ethiopian Management Institute.

COMMENT TEMPLATE

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