

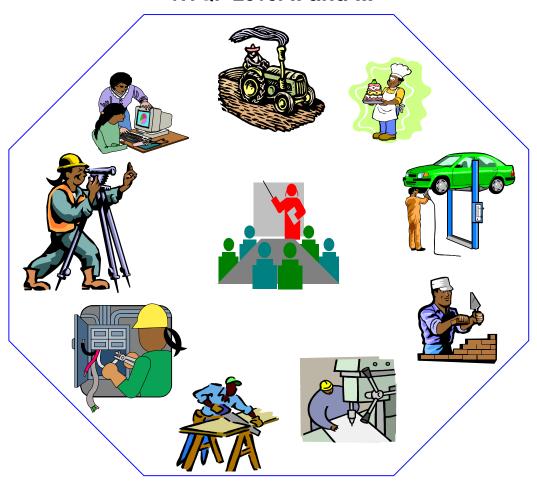


Federal Democratic Republic of Ethiopia

OCCUPATIONAL STANDARD

TEA PROCESSING

NTQF Level II and III



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 Ethiopian Occupational Standards (EOS) are - a 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 Ethiopian Occupational Standard comprised of Units of Competence.

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

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

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

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

- the chart with an overview of all Units of Competence for the respective occupation (Unit of Competence Chart) including the Unit Codes and the Unit of Competence titles
- the contents of each Unit of Competence this includes further directions on the contents and format of the unit of competence
- 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

Page 1 of 149 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	--	------------------------

UNIT OF COMPETENCE CHART

Occupational Standard: Tea Processing

Occupational Code: IND TPR

NTQF Level II

IND TPR2 01 0613

Work in a Clean Room Environment

IND TPR2 02 0613

Handle Green Leaves Processes

IND TPR2 03 0613

Clean Equipment in Place

IND TPR2 04 0613

Clean and Sanitize Equipment

IND TPR2 05 0613

Inspect and Sort
Materials and Product

IND TPR2 06 0613

Apply Sampling Procedures

IND TPR2 07 0613

Participate in Sensory Analysis

IND TPR2 08 0613

Work with Moisture Controlled Stock

IND TPR2 09 0613

Perform Tea Blending

IND TPR2 10 0613

Operate an Extraction Process

IND TPR2 11 0613

Operate a
Concentration Process

IND TPR2 12 0613

Operate a Process
Control Interface

IND TPR2 13 0613

Co-ordinate a Label Store

IND TPR2 14 0613

Conduct Routine Maintenance

IND TPR2 15 0613

Use Basic Mathematical Concept

IND TPR2 16 0613

Participate in Workplace Communication

IND TPR2 17 0613

Work in Team Environment

IND TPR2 18 0613

Develop Business practice

IND TPR2 19 0613

Standardize and Sustain 3S

NTQF Level III IND TPR3 01 0613 IND TPR3 02 0613 IND TPR3 03 0613 Inspect Quality of Raw Operate Processes in a **Operate Withering** Materials and Production Tea Production System Process IND TPR3 04 0613 IND TPR3 05 0613 IND TPR3 06 0613 Operate Rolling and Monitor Fermentation Monitor and Operate **Cutting Process Process Drying Operation** IND TPR3 09 0613 IND TPR3 07 0613 **IND TPR3 08 0613** Operate Sorting and Operate Tea Packaging Perform Basic Tea Test Grading of Made Tea and Labeling Process IND TPR3 12 0613 IND TPR3 10 0613 **IND TPR3 11 0613** Undertake Tea Perform Stock Control Apply Raw Materials/ **Procedures** Processing Maintenance Ingredient and Process Activities Knowledge IND TPR3 15 0613 **IND TPR3 13 0613 IND TPR3 14 0613** Monitor Implementation Participate in a HACCP Set up a Production/ of Work plan/Activities Packaging Line for Team Operation IND TPR3 18 0613 **IND TPR3 16 0613 IND TPR3 17 0613 Lead Small Teams** Lead Workplace Apply quality Control Communication **IND TPR3 19 0613** IND TPR3 20 0613 Prevent and Eliminate Improve Business **Practice MUDA**

NTQF Level II

Occupational Standard: Tea Processing Level II		
Unit Title	Work in a Clean Room Environment	
Unit Code	IND TPR2 01 0613	
Unit Descriptor	This is a Specialist unit. It covers the skills and knowledge required to gown-up, enter and work in a clean room environment and de-gowns to minimize contamination risks.	

EI	Elements Performance Criteria	
1.	Prepare to enter a clean room environment	1.1 Appropriate <i>protective clothing and footwear</i> are identified and available.
	CHVIIOIIIICH	1.2 Clothing and footwear are correctly fitted and inspected prior to entering <i>a clean room</i> .
		1.3 Hand washing and disinfecting procedures are followed according to workplace <i>policy and procedure</i> .
2.	Work in a clean room environment	2.1. Workplace procedures are followed to enter a clean room environment.
		2.2. Work activities are conducted so as to minimize risk of contamination.
3.	Exit a clean room environment and de-gown	3.1 Workplace procedures are followed to exit a clean room environment.
	ac gom.	3.2 Protective clothing and footwear are removed according to workplace procedure.
		3.3 Clean room environment information are recorded according to workplace recording requirements.

Variable	Range	Range		
Protective clot	hing May Inclu	May Include:		
and footwear	• fit for p	fit for purpose and appropriate to a clean room environment		
A clean room	May Inclu	May Include:		
	any er	vironmentally graded work area		
policies and	May Inclu	de:		
procedures	• Work	s carried out according to company po	licies and	
		lures, licensing requirements, legislativ	ve requirements,	
		dustrial awards and agreements.		
		When applied to the pharmaceutical industry, relevant GMP		
		codes apply and reference to food safety is replaced by GMP		
clean room	May inclu			
environment		ard Operating		
information		 Procedures (SOPs) 		
	specif	specifications		
	• produ	 production schedules and instructions 		
	manuf	manufacturers' advice		
	standard forms and reports			
Page 5 of 135	Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	

Evidence Guide	
Critical Aspects of	Must confirm appropriate knowledge and skills to:
Competence	able to understand the impact of odd odours and smell may
	alter the sensory characteristics of tea
	Understand the sanitary protocols during processing
Underpinning	Demonstrate knowledge of:
Knowledge and	Purpose and conditions required in a clean room
Attitudes	environment. This includes an understanding of how the
	clean room maintains a clean environment and related airflow systems
	Preparation and handling requirements for garments and
	footwear worn in a clean room environment. This includes an
	understanding of garment features appropriate to a clean
	room environment and inspection procedure to confirm
	clothing and footwear are fit for use prior to fitting
	 Inspection points to confirm that clothing and footwear are
	correctly fitted according to workplace procedures
	Procedures to follow if garments are not fit for use
	Clean room control measures and related monitoring
	requirements for conducting work in a clean room and
	consequences of not complying with these requirements.
	Typically work is conducted slowly to minimize disturbance
	of particulates
	Procedures to follow to minimize risk of contamination
	including cleaning, sanitation, sterilization and disinfecting of
	equipment and surfaces
	This may include pressure differences between the clean
	room and change room and knowledge of location of
	pressure gauges. It may also involve checking operating
	conditions of ventilation systems
	Entry procedures
	Conditions which can cause contamination, and control
	measures to avoid this occurring
	OHS hazards and controls. This includes awareness of the
	limitations of protective clothing and equipment relevant to
	the work process
	Procedures for exiting and de-gowning
	Laundering requirements and procedures
	Housekeeping requirements for work area
	Recording requirements and procedures
Underpinning Skills	Demonstrate skills to:
1 3 - 3	Access workplace information to determine clean room work
	requirements
	Confirm that protective clothing and footwear are appropriate
	for use
	Follow procedures to fit and inspect protective clothing and
	footwear

Page 6 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 Follow procedures to enter a clean room environment. This includes following appropriate hand washing and disinfecting procedures and fitting gloves as required Conduct work in a manner appropriate to minimizing risk of contamination. This includes following procedures for sterilizing and disinfecting equipment and surfaces as required Exit the clean room environment according to workplace procedures Remove protective clothing and footwear in correct sequence and deposit for laundering according to workplace procedures Complete records as required 	
Docouroos	Maintain work Access is required to real or appropriately simulated situations.	
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to	
Пприсацоп	information on workplace practices and OHS practices.	
Methods of	Competence may be assessed through:	
Assessment	Interview / Written Test	
	Observation / Demonstration with Oral Questioning	
Context of	Competence may be assessed in the work place or in a	
Assessment	simulated work place setting.	

Occupational Standard: Tea Processing Level II		
Unit Title	Handle Green Leaves Processes	
Unit of Code	IND TPR2 02 0613	
Unit Descriptor	This unit deals with the skills, knowledge and attitudes required to perform handling of green leaves process. It involves processing postharvest handling of green leaf after plucking of the tea leaf shoots from the bush which includes handling at hand; placing the leaf in the basket and transporting the leaf bag to factory.	

Elements	Performance Criteria	
Leaf handling at hand	The plucked leaf which will be held by the hands should be optimum.	
	1.2 Once the plucked leaf which will be held by hands become optimum, they should be placed in the plucking basket for appropriate <i>leaf handling</i> management.	
	1.3 Any unnecessary mechanical damage to the leaf is avoided.	
	1.4 Basket, bag and hand should be made free from contamination.	
2. Leaf handling at basket and bag	2.1 The plucked leaf will be placed in the basket loosely.	
basket and bag	2.2 The amount of placed leaf in the basket shouldn't be beyond the standards.	
	2.3 The plucked leaf which will be placed in the basket shouldn't be left in the sun.	
3. Leaf Handling during transportation	The transported leaf bag should be hooked and air ventilated during transit.	
transportation	The bags are always made not on pile each other one up one another during transportation.	
	3. 3. Tools and equipment for the application of leaf handling are made mandatory.	
	4. Therefore providing sufficient transport to move the tender leaf to factory is important.	
	 Leaf handling is always made by taking in to account of an Occupational Health and Safety (OHS) and environmental impact. 	

Variables	Range	
Leaf handling	May Include:	
	The scope of this work covers the receiving of green leaf from the tea estates, applying different postharvest handlings to the plucked leaf until it reached to the factory gate.	
Tools and	May Include:	
Equipment	Leaf shades	

Page 8 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	---	------------------------

	Bags	
	Basket	
	Leaf handling sheet	
	transporting tractors (vehicles)	
	trailers	
Occupational	May Include:	
Health & Safety	Wearing synthetic gloves	
(OHS)	Protective clothes	
Types and Sources	May Include:	
of Information	From tea hand book	
	From manual prepared by experts	
Required	May Include:	
knowledge	Postharvest Technologies	
	Impact of leaf handling on quality production	

Evidence Guide	
Critical Aspects of	Must demonstrate knowledge and skills competence to:
Competence	Applying different postharvest technologies on the plucked leaf in order to maintain the quality
	 Maintain the leaf condition by appropriate placing of the leaf in the bag and shade
	 Keep the quality of the leaf during transportation to the factory
Underpinning	Demonstrate knowledge of:
Knowledge and	Postharvest Technologies
Attitudes	Nature of the tea leaf
	Impact of leaf handling on quality production
	Uses of equipment for the application of leaf handling
Underpinning Skills	Demonstrate skills to:
	 use all equipment and tools components to operate the handling of green leaf
	operate the equipments using different key instruments
	 record log information using the interface system 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	Access is required to real or appropriately simulated situations,
Implication	including work areas, materials and equipment, and to
	information on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Page 9 of 135	Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013]
---------------	------------------------------------	---	------------------------	---

Occupational Standard: Tea Processing Level II		
Unit Title	Clean Equipment in Place	
Unit Code	IND TPR2 03 0613	
Unit Descriptor	This unit of competency covers the skills and knowledge required to prepare process equipment for Cleaning In Place (CIP) or in-line.	

Ele	ements	Per	formance Criteria
	Prepare for cleaning	1.1	Chemical stocks are made available to meet cleaning and sanitation requirements.
		1.2	Services are confirmed as available and ready for operation.
		1.3	Equipment shutdown is planned and equipment is taken off-line for cleaning.
		1.4	Equipment and related valves and pipe work are configured to confirm readiness for cleaning.
		1.5	The plant is set for the cleaning cycle.
	Operate and monitor the cleaning process	2.1.	The cleaning cycle is undertaken according to company <i>policies and procedures</i> .
	oleaning process	2.2.	The cleaning process is monitored to confirm cleaning meets company requirements.
		2.3.	Cleaning data is recorded according to workplace reporting requirements.
		2.4.	Out-of-specification process and equipment performance is identified, rectified and/or reported.
	 Dispose of waste and return plant to operating 		Cleaning chemicals are flushed from plant and disposed of according to company policies and procedures.
	condition	3.2	Work is conducted according to environmental requirements.
		3.3	Plant is set up to meet operational requirements.

Variable		Range		
Chemical stoc	k	May include	:	
		 automati 	cally controlled or manually dosed/s	tocked
Services		May include	e:	
		power		
		water		
		Steam		
	 compressed and instrumentation air 			
Policies and	Work is carr		ied out in accordance with company	policies and
procedures	procedures		regulatory and licensing requirements, legislative	
		•	s, and industrial awards and agreen	
	applied to the pharmaceutical industry, relevant Good			
		Manufacturing Practice (GMP) codes apply and reference to		
food safety		food safety i	is replaced by GMP	
Page 10 of 135		y of Education	Tea Processing	Version 1
1 490 10 01 100	C	opyright	Ethiopian Occupational Standard	July 2013

Monitoring the	May include:
process	chemical strength
	cycle time
	temperatures
	• time
	storage tank levels
	condensate quality
	control panels and systems
Cleaning data	May include:
	Standard Operating Procedures (SOPs)
	specifications
	 production cleaning schedules and instructions
	signs and symbols
	Materials Safety Data Sheets (MSDS)
	manufacturers' advice
	standard forms and reports

Evidence Guide	
Critical Aspects of	Must confirm appropriate knowledge and skills to:
Competence	 shut down equipment and prepare for cleaning
	 prepare and use chemicals according to safe work requirements
	 clean equipment to meet work standards
	 monitor cleaning and report or address any non-compliances flush equipment and dispose of waste according to environmental guidelines
	complete required documentation
	 apply safe work practices and identify OHS hazards and controls
	Apply food safety procedures
Underpinning	Demonstrate knowledge of:
Knowledge and Attitudes	 purpose and basic principles of CIP, including the use and functions of caustic and acid solutions, and cleaning sequence and stages as required in the workplace purpose and use of cleaning equipment and chemicals used
	 terminology relating to the chemical solutions used safe work procedures, including appropriate signage of cleaning activities and safe handling and storage of cleaners and sanitisers used
	 purpose and limitations of protective clothing and equipment cleaning and sanitation requirements, including different levels of cleaning requirements depending on the reason for cleaning
	 characteristics of cleaning and sanitising chemicals used, including basic composition as well as compatibility of chemicals with types of equipment

Page 11 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

methods used to render equipment safe to clean, including the status and purpose of equipment guards, relevant lock out/tag out and isolation procedures equipment settings required for cleaning and for operating respectively basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment inspection points for cleaning and sanitation consequences of contamination of process flows by cleaning solutions and related safeguards types of waste generated by both the production and the cleaning process and related collection, treatment and disposal requirements environmental consequences of incorrect cleaning waste disposal procedures requirements to liaise/advise related work areas reporting and recording systems routine maintenance procedures where relevant sampling methods and test procedures where relevant Underpinning Skills Demonstrate skills to: access workplace information, such as the cleaning schedule to identify cleaning requirements select, fit and use personal protective clothing and/or equipment confirm supply of necessary materials and services handle and prepare cleaning and sanitation agents safely, including following correct handling and preparation procedures and use of appropriate protective clothing and equipment as required schedule cleaning and/or liaise with related work areas to take equipment and area off-line with minimal disruption to production prepare equipment and area for cleaning, such as rendering equipment safe to clean, removing obstacles and unnecessary equipment, correctly positioning equipment (e.g. valves, pipes, vents and taps), selecting appropriate cleaning cycle, removing waste and/or dismantling equipment clean equipment according to cleaning process cycle and procedures, such as starting up and operating the CIP process in both automatic and manual modes monitor the process and equipment operation to maintain the cleaning process within the required parameters locate emergency stop functions on equipment return plant to operating order return area to working order

Page 12 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

 take corrective action in response to out-of-specific results advise affected work areas of cleaning schedule aprogress maintain and store chemicals and related equipmorequired carry out relevant checks and inspections to confice ffectiveness of cleaning 	and
 progress maintain and store chemicals and related equipm required carry out relevant checks and inspections to confi 	nent as
 maintain and store chemicals and related equipm required carry out relevant checks and inspections to confi 	
· ·	firm
 sort, collect, treat, recycle or dispose of waste record cleaning information 	
 maintain work area to meet housekeeping standa conduct routine maintenance according to enterp 	
procedurestake samples and conduct tests according to enter	terprise
procedures	•
 use oral communication skills/language competer the job role as specified by the organisation, inclu questioning, active listening, asking for clarificatio seeking advice from supervisor 	uding
work cooperatively within a culturally diverse work	
Resources Access is required to real or appropriately simulated including work areas, materials and equipment, and information on workplace practices and OHS practices.	l to
Methods of Competence may be assessed through:	
Assessment • Interview / Written Test	
Observation / Demonstration with Oral Questioni	ning
Context of Competence may be assessed in the work place or i	in a
Assessment simulated work place setting.	

Occupational Standard: Tea Processing Level II	
Unit Title	Clean and Sanitize Equipment
Unit Code	IND TPR02 04 0613
Unit Descriptor	This unit of competency covers the purpose and effect of cleaning, sanitation and related procedures for Roasting, Blending & Grounding production equipment. This is an operational/Specialist unit. This unit should be selected where the operator is primarily responsible for cleaning and/or where they require a more detailed knowledge of cleaning and sanitation processes to carry out cleaning responsibilities. This unit applies to both wet and dry cleaning methods.

Elements	Performance Criteria
Prepare for cleaning	1.1 Cleaning/sanitizing agents and services are available and ready for use.
	1.2 Workplace information about Cleaning and sanitizing equipment is identified.
	Equipment is cleared of product and/or packaging consumables in preparation for cleaning.
	1.4 Equipment is rendered safe to clean.
2. Clean and sanitize equipment to	2.1 Equipment is cleaned and sanitized according to workplace procedure and requirements.
meet workplace requirements	2.2 Cleaning and sanitizing chemical according to workplace procedure and requirements.
	2.3 Equipment is inspected to confirm operating condition and cleanliness.
	2.4 Unacceptable equipment condition is identified and reported according to workplace procedures.
	Cleaning equipment and chemicals are stored according to workplace procedure.
	2.6 Waste from cleaning process is disposed of according to work place procedures.
	2.7 Equipment is restored to operating order.

Variable	Range
Services	May include:
	• power
	water
	steam
	compressed and instrumentation air
Workplace	May include:
information	 work instructions/Standard Operating Procedures (SOPs)

Page 14 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 specifications production and cleaning schedules labels and codes safety signs and symbols Materials Safety Data Sheets (MSDS) standard forms written or verbal instruction
Workplace	May include carried out in accordance with company
procedures	procedures, licensing requirements, legislative requirements,
	and industrial awards and agreements.
Cleaning and	May Include:
sanitizing chemicals	pre-mixed or manually mixed
Inspecting cleaning effectiveness	May include carrying out a visual inspection
Preparing/restoring	May include:
equipment	simple dismantling and reassembling of equipment parts
- 1- 1- 1	basic isolation
	covering of motors and instrumentation

Evidence Guide	
Critical Aspects of Competence	 Must confirm appropriate knowledge and skills to: prepare equipment for cleaning prepare and use chemicals according to safe work requirements clean and sanitise equipment to meet work standards monitor cleaning and report or address any non-compliances dispose of waste according to environmental guidelines complete required documentation apply safe work practices and identify OHS hazards and controls apply food safety procedures
Underpinning Knowledge and Attitudes	 Demonstrate knowledge of: The purpose of cleaning and sanitation and importance in maintaining food safety Functions of cleaners, sanitisers and related equipment Safe work procedures, including appropriate signage of cleaning activities, safe handling and storage of cleaners and sanitisers used, safety when using cleaning methods, such as hot water and steam hoses, and status and purpose of safety guards Purpose and limitations of protective clothing and equipment Cleaning and sanitation requirements relating to work responsibilities, including the need for different levels of cleaning where relevant Procedures for preparing cleaners and sanitizers as required Cleaning methods to be followed relating to work responsibilities

Page 15 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
--	---	------------------------	--

other work areas/operators who need to be consulted/advised on timing of cleaning Methods used to render equipment safe to clean, including understanding the status and purpose of equipment guards, relevant lock out/tag out and isolation procedures and related equipment settings for both cleaning and operating as required procedures for conducting cleaning and sanitising Types of waste generated by the cleaning process and related collection, treatment and disposal requirements Potential environmental impact of incorrect waste handling Inspection, cleaning and storage requirements of cleaning equipment used Inspection points and methods for confirming the effectiveness of cleaning and sanitation, including visual inspection, and where required, recording of cleaning conducted • Inspection requirements to confirm equipment condition, including acceptable equipment condition, ability to identify faulty or unacceptable equipment and take required corrective action Recording requirements and responsibilities Routine maintenance procedures where relevant Sampling methods and test procedures where relevant **Underpinning Skills** Demonstrate skills to: Access workplace information, such as the cleaning schedule to identify cleaning requirements Select, fit and use personal protective clothing and/or equipment Confirm supply of necessary cleaning and sanitising equipment and services Select and prepare cleaners and sanitisers as required according to workplace procedures Prepare equipment for cleaning, such as rendering equipment safe to clean, clearing product and waste materials, covering motors and instrumentation where steam or water hoses are used, and simple dismantling of equipment parts Advise any affected work areas/operators of cleaning progress to coordinate timely completion with minimal disruption to production Clean and sanitise equipment as required according to workplace procedures and cleaning schedule Return equipment to operating order (this may involve basic assembly of equipment parts) Inspect equipment to identify equipment condition and cleanliness Locate emergency stop functions on equipment

Page 16 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 Report and/or correct unacceptable equipment condition Maintain housekeeping standards Prepare cleaners and sanitisers as required Store cleaners, sanitisers and related equipment as required Carry out relevant checks and inspections Maintain work area to meet housekeeping standards Conduct routine maintenance according to enterprise procedures Take samples and conduct tests according to enterprise procedures Record cleaning and sanitation information 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	Competence may be assessed through:
Assessment	Interview / Written Test
7.00001110111	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
	· · · · · · · · · · · · · · · · · · ·
Assessment	simulated work place setting.

Occupational Standard: Tea Processing Level II		
Unit Title	Inspect and Sort Materials and Product	
Unit Code	IND TPR02 05 0613	
Unit Descriptor	This is a specialist unit. It covers the skills and knowledge required to inspect and sort product/incoming materials ready for processing.	

Elements	Performance Criteria
Inspect materials to confirm fitness for use	1.1 Type and quality requirements of materials are confirmed according to workplace <i>policy and procedure</i> .
Tor dos	1.2 Materials are conveyed/transferred by the <i>material transfer equipment</i> to required locations.
2. Sort materials	2.1 Materials/ product is inspected to confirm quality requirements are met.
	2.2 Materials/product is sorted as required to meet production requirements.
	2.3 Unacceptable quality is identified and reported according to workplace reporting requirements.
	2.4 Access workplace information on materials.
	2.5 The workplace meets <i>housekeeping</i> standards.

Variable	Range	
Policies and	May Include:	
procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements	
Materials transfer	May Include:	
equipment	mechanical or pneumatic	
	• conveyors	
	• flumes	
	pumped systems	
Product inspection	May Include:	
and sorting	Sizing	
	Quality inspection	
	sorting/grading	
	Aspects of these processes may be:	
	Automated or done using equipment such as sieves.	
	Related processes may include:	
	> trimming	
	removal of unacceptable product	
Workplace	May Include:	
information	instructions/operating procedures (SOPs)	

Page 18 of 135 Ministry of E Copyr		Version 1 July 2013
---------------------------------------	--	------------------------

	 specifications production schedules labels and codes safety signs and symbols photos or other visual representations of acceptable quality standard forms verbal messages requests or instructions
Housekeeping process	May Include: • washing and cleaning product
Inspection	May Include: Visual inspection

Evidence Guide	
Critical Aspects of	Must confirm appropriate knowledge and skills to:
Competence	 Apply the tools to identify the tea grades during sorting
Competence	
	and sorting
Lladorniania	Coordinating material and product inspecting and sorting Demonstrate knowledge of:
Underpinning	Demonstrate knowledge of:
Knowledge and Attitudes	Purpose and standards to be met by the inspection and This includes a detailed understanding of
Attitudes	sorting process. This includes a detailed understanding of
	the criteria and specifications as they apply to inspection and
	sorting requirements
	The relationship between visual inspection and sorting and their inspection precedures such as these that may be
	other inspection procedures such as those that may be
	conducted by a laboratory or at subsequent processing
	stages
	Typical causes of unacceptable or out-of-specification product. This includes causes of product damage that can
	occur prior to arrival at the plant and as part of the handling
	process
	 The stages that occur in the inspection and sorting process
	and their effect on product. This may include in-line
	cleaning/conditioning and product/materials transfer stages
	 Typical equipment faults and related causes. This includes
	recognition of signs and symptoms of faulty equipment and
	early warning signs of potential problems
	 Contamination/food safety risks associated with the sorting
	process and related control measures
	OHS hazards and controls. This includes awareness of the
	limitations of protective clothing and equipment relevant to
	the work process
	 Procedures and responsibility for reporting production and
	performance information
	Environmental issues and controls relevant to equipment
	operation. This includes waste collection and handling
	procedures related to the process
	<u>'</u>

Page 19 of 135	Ministry of Education	Tea Processing	Version 1
rage 19 01 133	Copyright	Ethiopian Occupational Standard	July 2013

	 Basic operating principles of equipment used. This may include an operational understanding of main equipment components; status and purpose of guards; emergency stop, isolation and lockout controls; equipment operating capacities and applications; and a knowledge of services required and action to take if services are not available Recording procedures and responsibilities Washing/cleaning requirements and standards
Underpinning Skills	 Demonstrate skills to: Access workplace information on materials specification/quality requirements Select, fit and use personal protective clothing and/or equipment Inspect quality of materials to confirm compliance with quality specifications. This may include confirming:
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 TestObservation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Tea Processing Level II	
Unit Title	Apply Sampling Procedures
Unit Code	IND TPR02 06 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to understand the requirements of sampling plans, and to collect and transfer samples to retain sample integrity.

Elements	Performance Criteria
Prepare for sampling	1.1 Sampling requirements are identified in accordance with the sampling plan.
	1.2 Sampling equipment, containers and labels are prepared.
2. Collect samples	2.1. Samples are collected according to sampling procedures and the requirements of the sampling plan and sampling technique .
	2.2. Samples are handled and prepared to preserve sample and source <i>integrity</i> .
	2.3. Defects or abnormalities in source material and/or sample are identified and reported.
	2.4. Sample information is recorded according to workplace sample recording requirements.
	2.5. The work area is maintained according to housekeeping standards.
	2.6. Work is conducted in accordance with workplace environmental guidelines, <i>policy and procedure</i> .

Variable	Range	
Sampling	May include:	
requirements	sampling under standard conditions	
	sampling after processes are adjusted in response to	
	variation or non-conformance	
Sampling	May include:	
	Sampling typically occurs at a number of points and using a	
	range of techniques	
Sampling techniques	May include:	
	sub-sampling	
Maintenance of	May include:	
sample integrity	use of appropriate personal protective clothing	
	use of clean sampling tools and containers (sterilised	
	tools/containers for aseptic sampling)	
	temperature control	
	addition of preservatives as required	
Sampling information	May include:	
	Standard Operating Procedures (SOPs)	

Page 21 of 135	Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
----------------	------------------------------------	---	------------------------	--

	 specifications production schedules and instructions manufacturers' advice sampling plans 	
Policies and procedures	 sampling plans May include: Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements 	

Evidence Guide	
Critical Aspects of Competence	 Must confirm appropriate knowledge and skills to: conduct pre-start checks on equipment used for collecting and handling samples collect, handle and store samples according to sampling requirements and standards take corrective action in response to typical defects and inconsistencies complete workplace records as required apply safe work practices and identify OHS hazards and controls Apply food safety procedures.
Underpinning Knowledge and Attitudes	 Demonstrate knowledge of: basic sampling principles, including the importance of following the sampling plan to obtain representative sampling reflecting characteristics of source material, the sample characteristics and related preservation, handling and storage requirements, and the labelling system purpose and requirements tests to be conducted on samples and related handling and preparation requirements and responsibilities characteristics of materials sampled and common contaminants and related conditions under which contamination is likely to occur sampling techniques relevant to samples collected, such as sterilisation methods and procedures the relationship between sampling, testing and production processes, including different sampling regimes that may apply in response to non-standard conditions or after corrective action is taken to adjust production outputs procedures and responsibility for reporting and recording sampling information, such as legislative requirements procedures for preparing samples where relevant
Underpinning Skills	Demonstrate skills to: access and interpret sampling plan to identify sampling requirements select, fit and use personal protective clothing and/or equipment

Page 22 of 135	Ministry of Education	Tea Processing	Version 1
1 490 22 01 100	Copyright	Ethiopian Occupational Standard	July 2013

	 prepare for sampling to ensure required tools, containers and labels are available follow sampling procedures and the sampling plan to collect samples from the points, in the quantities and at the times specified identify atypical source materials and/or samples and take corrective action, such as reporting abnormalities, repeating sample collection and/or following intensive sampling schedules as required complete sample records according to workplace requirements, such as labelling samples as required transfer samples for testing maintain work area to meet housekeeping standards prepare samples 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	Access is required to real or appropriately simulated situations,
Implication	including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Occupational Standard: Tea Processing Level II		
Unit Title	Participate in Sensory Analysis	
Unit Code	IND TPR02 07 0613	
Unit Descriptor	This is an optional unit. It covers the skills and knowledge required to participate in sensory analyses.	

Elements	Performance Criteria
1. Prepare to conduct sensory analysis	Personal conduct and the test environment are made appropriate to conducting sensory analysis.
analysis	1.2 <i>Criteria for assessment</i> are made available and appropriate to analysis requirements.
	1.3 Method of <i>sensory analysis</i> is made appropriate.
	1.4 Samples are made available for analysis.
	1.5 Defects or abnormalities in sample are identified and reported.
2. Conduct sensory analysis	2.1. Samples are analyzed according to workplace <i>procedure</i> and analysis criteria.
	2.2. Sensory analysis information and results are recorded according to workplace recording requirements.

Variable	Range
Criteria for	May Include:
assessment	• flavor
	appearance
	• aroma
	texture
Sensory analysis	May Include:
	 conducted by individuals and/or panels
	 applied to materials/ingredients and/or final products
Procedures	May include work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
Sensory analysis	May Include:
information	Standard Operating Procedures (SOPs)
	Specifications
	sampling plans
	sensory analysis criteria and reporting documentation

Evidence Guide	
Critical Aspects of	Must confirm appropriate knowledge and skills to:
Competence	 evidence of recognising the organoleptic properties of foods, implementing procedures for sensory testing, and coordinating a taste panel and recording the results

Page 24 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

Underninning	Principles of concern analysis. This includes an
Underpinning Knowledge and Attitudes	 Principles of sensory analysis. This includes an understanding of attributes that can be detected by taste and smell such as sour, sweet, salty and bitter; how these different tastes are detected - where on the tongue tastes are discerned; and the interaction between taste and smell. It also includes an understanding of attributes detected by mouth feel and appearance Sensory analysis system and procedures. This may include an understanding of the collection and use of reference samples, the role of the individual in the analysis process and how the system validates analysis results Specific criteria used to evaluate material/product samples and the associated descriptions Sample preparation requirements. This is dependent on materials/products to be analyzed and includes an awareness of the effect of sample temperature on sensory analysis The effect of personal conduct on analytical ability. This includes an awareness of stimuli and conditions that can dull sensitivity Requirements of the environment appropriate to conducting sensory analyses The components of material/product sampled that contribute to flavor, aroma, appearance and texture The likely causes of variation in results. This includes an understanding of the typical variation that can occur in the material/product and how these occur, as well as an understanding of how the method of analysis, environment and state of individual participants that can affect the outcome
	 Procedures and responsibility for recording and reporting sensory analysis information
Underpinning Skills	Access and interpret sensory analysis schedule and
	analysis criteria to identify requirements
	Ensure that personal conduct does not jeopardize
	analytical ability
	Confirm that samples are available and in an appropriate
	condition for analysis
	Follow procedures to analyze samples provided
	Record and/or report results of analysis
Resources	Access is required to real or appropriately simulated situations,
Implication	including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Page 25 of 135 Ministry of Ed Copyrigi	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	--	------------------------

Occupational Standard: Tea Processing Level II		
Unit Title	Work with Moisture Controlled Stock	
Unit Code	IND TPR2 08 0613	
Unit Descriptor	This is a specialist unit. It covers the skills and knowledge required to store and retrieve temperature controlled stock from appropriate storage facilities.	

EI	Elements		formance Criteria
1.	Store stock to meet temperature control	1.1	Goods requiring temperature control are identified according to <i>policy and procedure</i> .
	requirements	1.2	Goods are located in correct storage areas to meet storage temperature, stores handling and stock rotation <i>requirements</i> .
		1.3	Stores information is recorded according to workplace requirements.
2.	Monitor and maintain temperature of	2.1.	Stock temperature is monitored to confirm temperature is within specified limits.
	stock within specifications	2.2.	Storage areas are monitored to confirm temperature is within storage zone limits.
		2.3.	Residence time in <i>temperature controlled stores</i> 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.
	33 333	3.2	Stores transfer information is recorded according to workplace reporting requirements.

Variable	Range
Policies and	May include:
procedures	 Work is carried out according to company policies and
	procedures, regulatory and licensing requirements,
	legislative requirements, and industrial awards and
	agreements
Requirements	May include:
	 Typically reflected in procedures and specifications.
	Legislation relevant to this industry includes the Food
	Standards Code including labeling, weights and measures
	legislation; and legislation covering food safety,
	environmental management, occupational health and safety,
	anti-discrimination and equal opportunity
Store information	May include:
	 Standard Operating Procedures (SOPs)

Page 26 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

Temperature controlled stock	 specifications production schedules and instructions manufacturers' advice standard forms and reports May include: stock to be stored at a constant temperature at different temperatures for given durations
Temperature controlled storage facilities	May include: • controlled temperature environment

Evidence Guide	
Critical Aspects of	Must confirm appropriate knowledge and skills to:
Competence	 Implement that the storage atmosphere should be clean and
Competence	low in relative humidity.
	 Know the products put on the palate to avoid any possible contact with moisture
Underpinning	Demonstrate knowledge of:
Knowledge and Attitudes	 OHS hazards and controls. This includes the purpose and limitations of protective clothing and equipment Temperature controlled storage facilities and capacities
	available in the work area. This may include understanding of temperature zones within a single store and concepts such as the Cold Chain compliance as relevant to work requirements
	Temperature control requirements of stock handled in the work area. This includes understanding of acceptable temperature ranges and consequences of failing to meet these ranges. It may also include 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. This includes awareness of 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. This includes 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
	1 Teodraling requirements and procedures

Page 27 of 135 Min	nistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Underninning Skills	Demonstrate skills to:
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. This can include 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-standard 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
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	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Occupational Standard: Tea Processing Level II		
Unit Title	Perform Tea Blending	
Unit Code	IND TPR2 09 0613	
Unit Descriptor	This is a specialist unit that has been developed for the tea processing sector. It covers the preparation and operation of the tea picking and blending process.	

El	ements	Performance Criteria
1.	 Prepare the tea picking and blending process 	1.1 <i>Materials</i> are confirmed and available to meet production requirements.
	for operation	1.2 Services are confirmed as available and ready for <i>operation</i> .
		1.3 Equipment is checked to confirm readiness for use.
		1.4The <i>process</i> is set to meet production specifications.
2.	Operate and monitor the tea picking and	The tea picking and blending process is started up according to company procedures.
	blending process	2.2 Tea is blend picked according to blend sheets.
		2.3 Tea is transferred to blending drum and blended to product specification.
		2.4 Blended tea that meets product specifications is produced.
		2.5 The tea picking and blending process is started up according to company procedures.
		2.6 Tea is blend picked according to blend sheets.
		Tea is transferred to blending drum and blended to product specification.
		2.8 Control points are monitored to confirm product meets specifications.
		2.9 Equipment is monitored to <i>confirm</i> operating condition.
		2.10 Out-of-specification product process and equipment performance is identified, rectified and/or reported.
		2.11 Blended tea is transferred to storage hoppers/silos.
3.	Shut down the tea picking and	3.1 The process is shut-down according to company <i>procedures</i> .
	blending process	3.2 Waste generated by the process is collected, treated and disposed or recycled according to company procedures.
4.	Record Information	4.1 Workplace information is recorded in the appropriate format.

Variable	Range
Materials	May include:
	tea types and varieties

Page 29 of 135 Min	nistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	process and packaging consumables		
Process operation	May include:		
and monitoring	 manual or involve the use of a process control 		
functions	The state of the state of a process control		
Equipment	May include:		
	materials handling equipment		
	• conveyors		
	silos and blending drums		
	transfer		
	storage systems		
Monitoring the	May include:		
process	the use of production data such as performance control		
	charts		
Control points	May include:		
	food safety (critical)		
	quality and regulatory control points		
	inspections points		
Confirming	May include:		
equipment status	 checking that hygiene and sanitation standards are met, 		
	all safety guards are in place		
	equipment is operational		
Policy and procedure	May include:		
	Work is carried out in accordance with company procedures,		
	legislative requirements, licensing requirements and		
	industrial arrangements		
Workplace	May include:		
information	Standard Operating Procedures (SOPs)		
	Specifications		
	production schedules and batch instructions		
	consignment note details		
0	verification procedures		
Services	May include:		
	• Power		
	• steam		
	• water		
	Vacuum compressed and instrumentation air		
Other equipment	compressed and instrumentation air May include maying vehicles and aguinment		
Other equipment	May include moving vehicles and equipment May include:		
Information systems			
	printscreen based		
	- 2016G11 N42G0		

Evidence Guide		
Critical Aspects of	Must confirm appropriate knowledge and skills to:	
Competence	 Conduct pre-start checks on machinery used for blending 	
	 Start, operate, monitor and adjust process equipment to 	
	achieve required quality outcomes	

Page 30 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

	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 practice
Underpinning	Demonstrate knowledge of:
Knowledge and	 key features of the picking and blending cycles
Attitudes	, , , , , , , , , , , , , , , , , , , ,
Attitudes	 purpose of each stage in picking and blending process and links to related processes
	 common varieties and blends of teas used quality
	parameters for blended teas
	Effect of raw materials on process outcomes process
	specifications, procedures and operating parameters.
	 procedures for the addition of re-claimed tea to blending
	process
	 key variables affecting the tea picking and blending
	process production and blend sheet requirements equipment
	characteristics, capabilities, limitations, purpose and
	operation
	basic operating principles of process control systems where
	relevant services used
	significance and methods of monitoring control points
	common causes of variation and corrective action required
	OHS hazards and controls
	lock out and tag out procedures
	environmental issues and controls
	shut down and cleaning requirements associated with
	changeovers and types of shut downs
	waste handling requirements and procedures
	recording requirements and procedures
	cleaning and sanitation procedures
	sampling and testing procedures
	routine maintenance procedures
Underpinning Skills	Demonstrate skills to:
	access workplace information to identify production/blend
	requirements
	confirm supply of necessary materials and services
	select fit and use personal protective clothing and or
	equipment
	Liaise with other work areas. This may include warehouse,
	holding/storage and packaging areas
	confirm equipment status and condition
	set-up and start up equipment
	select and verify teas according to blend sheet requirements
	 selecting and identifying tea types,
	J J J J J 7

Page 31 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 picking off required number of sacks/chests checking details on each sacks/chests against blend sheets confirming vessel, voyage, origin, chop and mark details of each sack/chest tip, weigh and blend tea incorporate re-claimed tea as required Monitor the process and equipment operation to identify out-of-specification results or noncompliance. This may include monitoring for the presence of mould take corrective action in response to out-of specification results or non-compliance report and/or record corrective action as required monitor supply and flow of materials to and from the process sort, collect, treat, recycle or dispose of waste conduct product/batch changeovers shut down equipment in response to an emergency situation shut down equipment in response to routine Shut down requirements. prepare equipment for cleaning maintain workplace records maintain work area to meet housekeeping standards clean and sanitize of equipment take samples and conduct tests carry out routine maintenance 	
Resources	, and the second	
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	Competence may be assessed through:	
Assessment	Interview / Written Test	
	Observation / Demonstration with Oral Questioning	
Context of	Competence may be assessed in the work place or in a	
Assessment	simulated work place setting.	
	·	

Occupational Standard: Tea Processing Level II			
Unit Title	Operate an Extraction Process		
Unit Code	IND TPR2 10 0613		
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down processes used to extract chemical nutrients from green tea leafs using different methods.		

Elements	Performance Criteria
Prepare the extraction equipment and process for operation	Materials are confirmed, blended and prepared to meet production requirements.
	1.2 Workplace documentation relevant to work area activities is identified and followed.
	1.3 The required facilities, storage, equipment and personnel are made available.
	1.4 Line clearance procedures have been carried out,
	1.5 Procedures are followed to eliminate or control the risk of cross-contamination.
	 Material is loaded into percolator and solvents are added to specification.
Operate and monitor the extraction process	The extraction process is monitored to confirm that specifications are met.
	2.2 Out-of-specification product/process is identified, rectified and/or reported to maintain the process within specification.
	2.3 The work area is maintained according to housekeeping standards.
	2.4 Work is conducted according to environmental standards.
	2.5 Workplace documentation is maintained according to workplace reporting requirements .
3. Shut down the extraction process	3.1 The <i>process</i> is shut down according to workplace procedures and work practices.
p. 55555	3.2 Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	Range
Procedures	 May include: Work activities are carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements

Page 33 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	--	------------------------

Workplace	May include:			
documentation	specifications			
	manufacturing formulae			
	processing instructions			
	 batch production records 			
	 Standard Operating Procedures (SOPs) 			
	 OHS information, including Materials Safety Data Sheets 			
	(MSDS)			
Legislative	May include:			
requirements	legislative and licensing requirements			
	weights and measures legislation			
	 legislation relating to OHS, environmental management, 			
	equal opportunity and affirmative action, industrial awards			
	and agreements			
Extraction process	May Include:			
	 aqueous and/or alcohol based (temperature may or may not 			
	be applied during extraction process)			
Equipment	May include:			
	blenders/mixers			
	percolators			
	tamping rods			
	collection vessels			

Evidence Guid	de				
Critical Aspect Competence	s of	prepare to followingload matmonitor to Maintain	st confirm appropriate knowledge and skills to: corepare the extraction process for operation, including following line clearance procedures coad materials and solvents to maximise extract collection monitor the extraction process Maintain all necessary records.		
Underpinning Knowledge an Attitudes	d	 Maintain all necessary records. Demonstrate knowledge of: purpose and principles of each stage of the extraction process, including the effect of herb density on filtration and packing process required for different types of herbs basic operating principles of equipment, including main equipment components and equipment operating capacities and applications quality requirements of materials and the effect of variation on the extraction process process specifications, procedures and operating parameters for different products/materials 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			
Page 34 of 135		of Education opyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	

Underpinning Skills	 methods used to monitor the extraction process, such as inspecting, measuring and testing as required by the process, and the ability to calculate yields contamination/food safety risks associated with the extraction process common causes of variation and corrective action required OHS hazards and controls, including the risks involved with the use of solvents, such as ethanol, and the limitations of protective clothing and equipment used extraction process shutdown and changeover procedures and responsibilities environmental issues and controls relevant to the extraction process, including waste collection and handling procedures related to the process cleaning and sanitation procedures workplace documentation and authorisation procedures select, fit and use personal protective clothing and/or equipment conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, 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 placing sand filters/scourers in base of percolators where required start, operate, monitor and adjust process to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: density of green tea leafs in percolator, including repacking of percolator as required rate/amount of solvent addition extract collection and yield take corrective action in response to out-of-specification results respond to and/or report equipment failure within level of responsibility demonstrate batch/product changeovers including line clearance procedures sort, collect, treat, recycle or dispose of waste clean
	work cooperatively within a culturally diverse workforce
	work cooperatively within a culturally diverse workloide

Page 35 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

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

Occupational Standard: Tea Processing Level II		
Unit Title	Operate a Concentration Process	
Unit Code	IND TPR2 11 0613	
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down processes used to concentrate liquid products.	

Elements	Performance Criteria
Prepare the concentration equipment and	1.1 <i>Materials</i> and services are confirmed to meet production requirements.
process for operation	1.2 Workplace documentation relevant to work area activities is identified and followed.
	1.3 The required facilities, storage, <i>equipment</i> and personnel are available.
	1.4 Line clearance <i>procedures</i> have been carried out.
	1.5 Procedures to eliminate or control the risk of cross- contamination are followed.
	1.6 The concentration process is set up and started up in accordance with workplace practices.
2. Operate and monitor the concentration	2.1 The concentration process is monitored to confirm that specifications are met.
process	2.2 Out-of-specification product/process is identified, rectified and/or reported to maintain the process within specification.
	2.3 The work area is maintained according to housekeeping standards.
	2.4 Work is conducted according to environmental standards.
	2.5 Workplace documentation is maintained according to workplace reporting requirements.
3. Shut down the concentration process	3.1 The process is shut down according to workplace procedures and practices.
p. 00000	3.2 Maintenance <i>requirements</i> are identified and reported according to workplace reporting requirements.

Variable	Range
Materials	May include:
	liquids products
	distillate
	• water
Workplace	May include:
documentation	specifications
	manufacturing formulae

Page 37 of 135	linistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 processing instructions batch production records Standard Operating Procedures (SOPs) OHS information including Materials Safety Data Sheets (MSDS)
Equipment	 May include: centrifugal evaporator and collecting vessels (the evaporator may or may not be in line with heat exchanger) Service equipment also includes: boilers and cooling towers
Procedures	 May include: Work activities are carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
Legislative requirements	 May include: legislative and licensing requirements Therapeutic Goods Act weights and measures legislation legislation relating to OHS, environmental management, equal opportunity and affirmative action, industrial awards and agreements
Cleaning and sanitation	May include: cleaning in place procedures for cleaning equipment, involving cleaning with remaining distillate, rinsing with water, caustic cleaning and rinsing with water till machine is neutralised

Evidence Guid	de			
Critical Aspects of Competence		• prepare	n appropriate knowledge and skills t the concentration process for operat	
		_	line clearance procedures operate and monitor equipment to p	roduce
			ate within specifications	
		Maintain all necessary records.		
Underpinning Demonstrate knowledge of:				
Knowledge and Attitudes		 purpose and principles of each stage of the concentration process, including the effect of heat and vacuum on distillate volume 		
		•	erating principles of the equipment, and components and equipment oper ications	
		 services available 	required and action to take if service	es are not
			equirements of materials and the effo oncentration process	ect of variation
			specifications, procedures and oper ers for different products/materials	ating
Page 38 of 135		of Education opyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013

- 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 concentration process, such as inspecting, measuring and testing as required by the process, and the ability to calculate yields and determine the number of passes required to ensure concentration is within specification
- contamination/food safety risks associated with the concentration process
- · common causes of variation and corrective action required
- Occupational Health and Safety (OHS) hazards and controls, including the risks involved with the use of solvents such as ethanol, and the limitations of protective clothing and equipment used
- concentration process shut down procedures and responsibilities
- line clearance procedures, including procedures for cleaning feed lines
- environmental issues and controls relevant to the concentration process, including waste collection and handling procedures related to the process
- cleaning and sanitation procedures
- workplace documentation and authorisation procedures

Underpinning Skills

Demonstrate skills to:

- select, fit and use personal protective clothing and/or equipment
- conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, 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 turning on oil pumps to the evaporator, and pre-running equipment in line with operating temperature requirements where required
- start, operate, monitor and adjust process to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as:
 - > product and machine temperature
 - vacuum
 - distillate color
 - viscosity of concentrate
- take corrective action in response to out-of-specification results

Page 39 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 respond to and/or report equipment failure within level of responsibility demonstrate batch/product changeovers including line clearance procedures clean and sanitise equipment as required sort, collect, treat, recycle or dispose of waste complete workplace records 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	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Occupational Standard: Tea Processing Level II		
Unit Title	Operate a Process Control Interface	
Unit Code	IND TPR2 12 0613	
Unit Descriptor	This unit of competency covers the skills and knowledge required to operate a computer-based interface to modify and/or interrogate a control system.	

Elements	Performance Criteria		
Navigate the process control interface	The readiness of the control interface and related components for operation are confirmed.		
mioridoo	1.2 Hardware provided is used to operate the interface.		
	1.3 Page links are used to move between screens.		
	1.4 Messages and alarms are acknowledged.		
	1.5 Required <i>information is accessed</i> from screen displays.		
	1.6 Computer based Interface system malfunctions are recorded and reported in accordance with workplace policy and procedures.		
Use interface system to operate and maintain a	2.1 Individual items of equipment and/or processes are started, monitored and shutdown using the control interface.		
process within required	2.2 Equipment is selected, status altered and settings entered to meet operating requirements.		
parameters	2.3 Sequences are activated to initiate process operation.		
	2.4 Equipment giving a bad signal or bad measurements is recognized and responsive action taken.		
3. Analyse data to predict and control performance	3.1 Trends are selected and analyzed to identify performance patterns.		
portormanoo	3.2 Causes of abnormal or unacceptable performance are identified and corrective action taken.		
	3.3 Workplace Information is recorded as required.		

Variable	Range		
Information	May include:		
accessed	graphics, trends		
	parameter settings		
	• alarms		
	individual plant item status		
Computer-based	May include:		
interface	computer processor		
	monitor		
	keyboards		
	track ball		

Page 41 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 mouse storage devices printers (It is linked to the process control system)
Policies and procedures	May include: Work is carried out in accordance with company policies and procedures, manufacturers' recommendations, legislative requirements, codes of practice and industrial awards and agreements
Workplace information	May include: Standard Operating Procedures (SOPs) manufacturers' specifications

Evidence Guide	
Critical Aspects of	Must confirm appropriate knowledge and skills to:
Competence	operate and navigate interface to access, retrieve, enter and store work data
	start, operate, monitor and shut down process equipment
	 control and adjust equipment using control interface to achieve production requirements
	recognise faults and inconsistencies and take corrective action
	complete workplace records as required
	 Apply safe work practices and identify OHS hazards and controls.
Underpinning	Demonstrate knowledge of:
Knowledge and Attitudes	 processes and equipment being controlled, including required processing sequences
	 operating principles of process control and interface system, including the relationship between control panels, systems and the physical equipment, and where relevant understanding of the operating conditions required for accurate information input from sensors and related instrumentation action required to respond to error messages and alarms typical faults that can occur when operating a process control interface and corrective action required
	 performance data collected by the control interface system and its application to troubleshoot performance, including the ability to identify and investigate related trend data to track cause and effect recording requirements and responsibilities
Underpinning Skills	Demonstrate skills to:
	 use all hardware components to operate the control interface navigate the system to locate and use information required, including moving between screens and locating relevant performance data

Page 42 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 operate the control system using the interface, including start up and shut down equipment components and change set points as required locate sensors and instrumentation providing input signals to the control system and confirm operating order within level of responsibility recognise and respond to error messages and alarms as required access relevant performance data using the control system, including locating and interpreting performance trend information record log information using the interface system 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	Access is required to real or appropriately simulated situations,	
Implication	including work areas, materials and equipment, and to	
	information on workplace practices and OHS practices.	
Methods of	Competence may be assessed through:	
Assessment	Interview / Written Test	
	Observation / Demonstration with Oral Questioning	
Context of	Competence may be assessed in the work place or in a	
Assessment	simulated work place setting.	

Occupational Standard: Tea Processing Level II			
Unit Title	Co-ordinate a Label Store		
Unit Code	IND TPR02 13 0613		
Unit Descriptor	It covers the skills and knowledge required to manage a label store in a tea processing workplace to meet workplace and legislative requirements.		

Elements	Performance Criteria
Receive labels	1.1 Label details are identified and verified.
	1.2The quantity of labels received is counted and reconciled against receivals documentation.
	1.3 Discrepancies are identified, investigated and reported.
Issue and reconcile labels	2.1. Labels are located/created to meet batch requirements.
Todoriono labolo	2.2. Labels are issued in correct quantities to meet batch requirements.
	 Labels returned to store are received, reconciled and recorded according to verification and reconciliation procedures.
	2.4. Records are maintained to meet workplace and <i>legislative</i> requirements.

Variable	Range
Procedures	May includes work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative	May includes:
requirements	 relevant Good Manufacturing Practice (GMP) codes the Therapeutic Goods Act and/or other relevant legislation legislation covering environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	 May include: Standard Operating Procedures (SOPs) labels and related documentation
	production schedules and instructionsstandard forms and reports

Evidence Guide	
Critical Aspects of Competence	 Must confirm appropriate knowledge and skills to: receive and verify labels issue labels according to batch requirements take corrective action in response to typical faults and discrepancies complete workplace records as required

Page 44 of 135 Mi	inistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	apply safe work practices and identify OHS hazards and
	controls Apply food gefety procedures to work practices
Underpinning	 Apply food safety procedures to work practices. Demonstrate knowledge of:
Knowledge and Attitudes	 system of label control, including the purpose and procedures for receiving, issuing, reconciling and verifying label management legislative responsibilities relating to label management purpose and requirements of security procedures and responsibilities types of labels received and issued and significance of codes consequences of issuing incorrect labels procedures for setting up, testing and operating label store equipment, including label counting equipment corrective action required if a discrepancy is identified Occupational Health and Safety (OHS) hazards associated with the work role
	 information operating procedures for label coding and printing equipment where relevant
Underpinning Skills	 Demonstrate skills to: follow receivals procedures to receive, count and store labels access production schedule to identify label requirements carry out procedures to test accuracy of label counting machines and record results verify that label information meets batch type, including setting up and using label counting equipment demonstrate the procedure for removing and accounting for damaged or other non-conforming labels select and issue labels to meet batch requirements and documentation demonstrate procedures to receive labels issued and returned from production conduct reconciliations of labels received and issued and conduct backup verification as required maintain security of label store maintain work area to meet housekeeping standards operate label coding and printing 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

Page 45 of 135 Min	nistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

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

Occupational Standard: Tea Processing Level II			
Unit Title	Conduct Routine Maintenance		
Unit Code	IND TPR02 14 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	Per	formance Criteria
Conduct routine inspection of plant	1.1	Equipment is inspected to identify signs of wear.
and equipment	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.
mamerianee	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 minimise disruption to production.
Carry out routine maintenance	3.1	Routine maintenance on equipment is carried out according to workplace procedures.
	3.2	Maintenance information and activities are reported according to workplace reporting requirements.
4. Complete maintenance tasks	4.1	Equipment is returned to operating order.
maintenance tasks	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	Ra	ange		
Inspections of		May include informally or as part of a structured program		
equipment	as	sociated v	with proactive maintenance	
Maintenance t	asks M	May include:		
	•	 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 		
Page 47 of 135	Ministry of Education Copyright		Tea Processing Ethiopian Occupational Standard	Version 1 July 2013

Routine	May include:
maintenance	 carried out according to company policies and procedures, licensing requirements, legislative requirements and industrial awards and agreements
Maintenance	May include:
information	 Standard Operating Procedures (SOPs)
	specifications
	production log books
	routine e schedules
	manufacturers' advice
	condition monitoring information
Tools and materials	May include:
	 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

			s and consumables for video intiget p	31111010	
Fuidones Ouis					
Evidence Guid					
Critical Aspects Competence	s of	 Must confirm appropriate knowledge and skills 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	controls. • system in place to manage maintenance of plant and		ems, such as tenance as enance program, roles of others e and where e maintained d early warning naintenance en mechanical causes or		
Page 48 of 135		of Education opyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	

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 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

Page 49 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 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	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.
	· -

Occupational Standard: Tea Processing Level II			
Unit Title	Use Basic Mathematical Concept		
Unit Code	IND TPR02 15 0613		
Unit Descriptor	This is unit of competency covers the skills and knowledge required to apply basic mathematical functions of addition, subtraction, multiplication and division to undertake workplace calculations or to estimate approximate answers when exact calculations are not required.		

Elements	Performance Criteria
Apply basic mathematical concepts to	1.1 <i>Calculation</i> requirements are identified and appropriate method is selected.
calculate workplace	1.2 <i>Information</i> data is obtained from relevant sources and interpreted correctly.
information	1.3 Calculations <i>results</i> are undertaken using addition, subtraction, multiplication and division to support work role.
2. Apply basic mathematical concepts to	2.1 <i>Estimation</i> requirements are identified and appropriate estimation method is selected.
estimate workplace	2.2 Data is obtained from relevant sources and interpreted correctly.
information	2.3 Estimations are made to meet work requirements.

Variable	Range	
Calculations	May include:	
	the use of whole numbers, decimals, fractions and percentages	
	Calculations may be made:	
	manually or using calculators and other measuring instruments as appropriate to the task	
Numerical	May include:	
information	simple run charts	
	graphs	
Results	May include:	
	Results may or may not be recorded depending on workplace requirements	
Estimations	May include:	
	observations of other amounts or measurements	
	 supplied data, such as volume or weight information on packaging of raw materials 	
Conversion charts	May include:	
	Conversion charts are those in common use in the workplace	

Page 51 of 135 Ministry of Educ Copyright	on Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

Critical Aspects of Competence Must confirm appropriate knowledge and skills to: identify calculation or estimation requirements carry out calculations involving basic addition, subtraction, division and multiplication where estimations are used, estimated amounts must be consistent with process or product specification and demonstrate knowledge of measurement units used in the workplace Use estimation techniques to check calculated results and workplace data. Demonstrate knowledge of: mathematical processes, including addition, subtraction, multiplication and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculation and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 Interview / Written Test Observation / Demonstration with Oral Questioning Context of Assessment simulated work place setting.	Evidence Guide	
identify calculation or estimation requirements carry out calculations involving basic addition, subtraction, division and multiplication where estimations are used, estimated amounts must be consistent with process or product specification and demonstrate knowledge of measurement units used in the workplace Use estimation techniques to check calculated results and workplace data. Demonstrate knowledge of: mathematical processes, including addition, subtraction, multiplication and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Underpinning Skills Underpinning Skills Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check place of the data of the required data estimates use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification an		Must confirm appropriate knowledge and skills to:
carry out calculations involving basic addition, subtraction, division and multiplication where estimations are used, estimated amounts must be consistent with process or product specification and demonstrate knowledge of measurement units used in the workplace Use estimation techniques to check calculated results and workplace data. Underpinning Knowledge and Attitudes Underpinning Competence of the mathematical processes, including addition, subtraction, multiplication and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculation and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 including work areas, materials and equipment, and to information on workplace practices and OHs practices. Competence may be assessed through:	•	
division and multiplication where estimations are used, estimated amounts must be consistent with process or product specification and demonstrate knowledge of measurement units used in the workplace Use estimation techniques to check calculated results and workplace data. Demonstrate knowledge of: **mathematical processes, including addition, subtraction, multiplication and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 Methods of Assessment Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Competence may be assessed in the work place or in a		·
consistent with process or product specification and demonstrate knowledge of measurement units used in the workplace Use estimation techniques to check calculated results and workplace data. Demonstrate knowledge of: mathematical processes, including addition, subtraction, multiplication and division application and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately according to enterprise procedures use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 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: Observation / Demonstration with Oral Questioning		
demonstrate knowledge of measurement units used in the workplace Use estimation techniques to check calculated results and workplace data. Demonstrate knowledge of: mathematical processes, including addition, subtraction, multiplication and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 Resources 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: Literview // Written Test Observation // Demonstration with Oral Questioning		where estimations are used, estimated amounts must be
workplace • Use estimation techniques to check calculated results and workplace data. Demonstrate knowledge of: • mathematical processes, including addition, subtraction, multiplication and division • application of calculation and estimation techniques to meet work requirements • units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) • representation of numerical information relevant to work requirements, such as charts, graphs and tables • recording requirements and responsibilities where relevant Demonstrate skills to: • identify whether a calculation or estimation is required to meet workplace requirements • carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) • use estimation techniques to check quantities, ratios, speed and other required data estimates • use estimation techniques to check calculated results and workplace data • record calculations and measurement information accurately 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 Resources 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		consistent with process or product specification and
Underpinning Knowledge and Attitudes Demonstrate knowledge of: • mathematical processes, including addition, subtraction, multiplication and division • application of calculation and estimation techniques to meet work requirements • units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) • representation of numerical information relevant to work requirements, such as charts, graphs and tables • recording requirements and responsibilities where relevant Demonstrate skills to: • identify whether a calculation or estimation is required to meet workplace requirements • carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) • use estimation techniques to check quantities, ratios, speed and other required data estimates • use estimation techniques to check calculated results and workplace data • record calculations and measurement information accurately 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 Resources Implication Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		demonstrate knowledge of measurement units used in the
Underpinning Knowledge and Attitudes Demonstrate knowledge of: • mathematical processes, including addition, subtraction, multiplication and division • application of calculation and estimation techniques to meet work requirements • units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) • representation of numerical information relevant to work requirements, such as charts, graphs and tables • recording requirements and responsibilities where relevant Demonstrate skills to: • identify whether a calculation or estimation is required to meet workplace requirements • carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) • use estimation techniques to check quantities, ratios, speed and other required data estimates • use estimation techniques to check calculated results and workplace data • record calculations and measurement information accurately 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 Methods of Assessment Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning Context of		workplace
Underpinning Knowledge and Attitudes Demonstrate knowledge of: mathematical processes, including addition, subtraction, multiplication and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		·
 Knowledge and Attitudes mathematical processes, including addition, subtraction, multiplication and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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. Competence may be assessed through: Interview / Written Test Observation / Demonstration with		
Attitudes multiplication and division application of calculation and estimation techniques to meet work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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		
work requirements units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices. Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a	_	
units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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. Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		···
representation of numerical information relevant to work requirements, such as charts, graphs and tables recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 Methods of Assessment Methods of Assessment Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Competence may be assessed in the work place or in a		 units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this
recording requirements and responsibilities where relevant Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 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 Interview / Written Test Observation / Demonstration with Oral Questioning Competence may be assessed in the work place or in a		
Underpinning Skills Demonstrate skills to: identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 Resources Implication Methods of Assessment Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		·
identify whether a calculation or estimation is required to meet workplace requirements carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 Resources Implication Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		 recording requirements and responsibilities where relevant
meet workplace requirements	Underpinning Skills	Demonstrate skills to:
 carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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 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 		 identify whether a calculation or estimation is required to
division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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. Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Competence may be assessed in the work place or in a		·
involve use of a calculator and conversion tables where required) use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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. Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		
use estimation techniques to check quantities, ratios, speed and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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. Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		involve use of a calculator and conversion tables where
and other required data estimates use estimation techniques to check calculated results and workplace data record calculations and measurement information accurately 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. Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		• ,
workplace data • record calculations and measurement information accurately 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 Competence may be assessed in the work place or in a		
 record calculations and measurement information accurately 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 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 Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Competence may be assessed in the work place or in a 		•
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 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 Competence may be assessed in the work place or in a		·
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 Assessment Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		
questioning, active listening, asking for clarification and seeking advice from supervisor work cooperatively within a culturally diverse workforce 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 Competence may be assessed in the work place or in a		 use oral communication skills/language competence to fulfil
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 Observation / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		the job role as specified by the organisation, including
work cooperatively within a culturally diverse workforce 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 Competence may be assessed in the work place or in a		questioning, active listening, asking for clarification and
Resources Implication Implication Including work areas, materials and equipment, and to information on workplace practices and OHS practices. Methods of Assessment Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		
Implication including work areas, materials and equipment, and to information on workplace practices and OHS practices. Methods of Assessment Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		
information on workplace practices and OHS practices. Methods of Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a		· · · · · · · · · · · · · · · · · · ·
Methods of Assessment Observation / Demonstration with Oral Questioning Context of Competence may be assessed through: Interview / Written Test Observation / Demonstration with Oral Questioning Competence may be assessed in the work place or in a	Implication	• • • • • • • • • • • • • • • • • • • •
Assessment Interview / Written Test Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a	Mathada of	
 Observation / Demonstration with Oral Questioning Context of Competence may be assessed in the work place or in a 		· · · · · · · · · · · · · · · · · · ·
Context of Competence may be assessed in the work place or in a	ASSESSITICITE	
	Context of	
Ministry of Education Tea Processing Version 1		

Page 52 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Occupational Standard: Tea Processing Level II	
Unit Title	Participate in Workplace Communication
Unit Code	IND TPR2 16 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
Obtain and convey	1.1 Specific and relevant information is accessed from <i>appropriate sources</i> .
workplace information	1.2 Effective questioning, active listening and speaking skills are used to gather and convey information.
	1.3 Appropriate <i>medium</i> 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.
	 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	2.1 Team meetings are attended on time.
workplace meetings and	2.2 Own opinions are clearly expressed and those of others are listened to without interruption.
discussions	2.3 Meeting inputs are consistent with the meeting purpose and established <i>protocols</i> .
	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.
Complete relevant work	3.1 Range of <i>forms</i> relating to conditions of employment is completed accurately and legibly.
related documents	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.

Page 53 of 135 Mir	nistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Variable	Range
Appropriate	May include but not limited to:
sources	Team members
	Suppliers
	Trade personnel
	Local government
	Industry bodies
Medium	May include but not limited to:
	Memorandum
	Circular
	Notice
	Information discussion
	Follow-up or verbal instructions
	Face to face communication
Storage	May include but not limited to:
	Manual filing system
	Computer-based filing system
Protocols	May include but not limited to:
	Observing meeting
	Compliance with meeting decisions
	Obeying meeting instructions
Workplace	May include but not limited to:
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
Forms	May include but not limited to:
	Personnel forms, telephone message forms, safety reports

Evidence Guide	
Critical Aspects of	Demonstrates skills and knowledge to:
Competency	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	Demonstrate knowledge of:
Knowledge and	Effective communication
Attitudes	Different modes of communication
	Written communication
	Organizational policies
	Communication procedures and systems
	 Technology relevant to the enterprise and the individual's work responsibilities

Page 54 of 135 Ministry of Educat Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	--	------------------------

Underninning Ckille	Demonstrate skills to:
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
	 Do basic mathematical processes of addition, subtraction, division and multiplication
	relate to people of social range in the workplace
	Gather and provide information in response to workplace Requirements
Resource Implications	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	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Occupational Standard: Tea processing Level II	
Unit Title	Work in Team Environment
Unit Code	IND TPR2 17 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
Describe team role and scope	1.1 The <i>role and objective of the team</i> are identified from available <i>sources of information</i> .
	1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources.
Identify own role and	2.1 Individual role and responsibilities within the team environment are identified.
responsibility within team	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.
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 are made to complement team activities and objectives, based on individual skills and competencies and workplace context .
	3.3 Protocols are observed 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	May include but not limited to:
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	May include but not limited to:
information	Standard operating and/or other workplace proceduresJob procedures
	 Machine/equipment manufacturer's specifications and instructions

Page 56 of 135	of Education Tea Processing oyright Ethiopian Occupational Standar	Version 1 d July 2013
----------------	--	--------------------------

	 Organizational or external personnel Client/supplier instructions Quality standards OHS and environmental standards
Workplace context	 May include but not limited to: 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	Demonstrates skills and knowledge to:		
competence	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	Demonstrate knowledge of:		
Knowledge and	Communication process		
Attitude	Team structure		
	Team roles		
	Group planning and decision making		
Underpinning Skills	Demonstrate skills to:		
	 Communicate appropriately, consistent with the culture of the workplace 		
Resource	Access is required to real or appropriately simulated situations,		
Implications	including work areas, materials and equipment, and to		
	information on workplace practices and OHS practices.		
Methods of	Competence may be assessed through:		
Assessment	Interview / Written Test		
	Observation / Demonstration with Oral Questioning		
Context of	Competence may be assessed in the work place or in a		
Assessment	simulated work place setting.		

Page 57 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

Occupational Standard: Tea processing Level II		
Unit Title	Develop Business Practice	
Unit Code	IND TPR2 18 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	1.1 Business opportunities are investigated and identified.
business opportunity	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 is assessed in line with perceived risks, returns sought and resources available.
	1.7 Business plan is completed for operation.
2. Identify personal	2.1 Financial and business skills available are identified and taken into account when business opportunities are researched.
business skills	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	3.1 Business structure and operations are determined and documented.
of business operation	3.2 Procedures are developed and documented to guide operations.
	3.3 Financial backing is secured for business operation.
	3.4 Business legal and regulatory requirements are identified and complied.
	3.5 <i>Human and physical resources</i> required to commence business operation are determined.
	3.6 Recruitment strategies are developed and implemented.
4. Implement	4.1 Marketing of business operation is undertaken.
establishment plan	4.2 Physical and human resources are obtained to implement business operation.

Page 58 of 135	Ministry of Education	Tea Processing	Version 1
rage 56 01 155	Copyright	Ethiopian Occupational Standard	July 2013

	4.3 Operational unit is established to support and coordinate business operation.
	4.4 Monitoring process is developed and implemented for managing operation.
	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 <i>contracts with relevant people</i> , negotiated and secured as required in accordance with the business plan.
	4.7 Options for leasing/ownership of business premises identified and contractual arrangements are completed in accordance with the business plan.
5. Review implementation	5.1 Review process for implementation of business operation is developed and implemented.
process	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	May include but not limited to:			
opportunities	expected financial viability			
	skills of operator			
	amount and types of finance available			
	returns expected or required by owners			
	likely return on investment			
	finance required			
	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	May include but not limited to:			
relevant parties	Chamber of commerce			
	Financial planners and financial institution representatives,			
	business planning specialists and marketing specialists			
	accountants			

Page 59 of 135	ry of Education Copyright Ethiopia	Tea Processing an Occupational Standard	Version 1 July 2013	
----------------	---------------------------------------	--	------------------------	--

	lawyers and providers of legal advice
	government agencies
	industry/trade associations
	online gateways
_	business brokers/business consultants
Personal	May include but not limited to:
skills/attributes	technical and/ or specialist skills
	business knowledge and skills
	entrepreneurship
	willingness to take risks
Business risks	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
Human and	May include but not limited to:
physical resources	software and hardware
	office premises
	communications equipment
	specialist services through outsourcing, contracting and
	consultancy
	• staff
	• vehicles
Operational unit	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
Logal documents	property May include but not limited to:
Legal documents	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	May include but not limited to:
relevant people	owners, suppliers, employees, landlords, agents, distributors,
	customers or any person with whom the business has, or seeks
	to have, a performance-based relationship
	, , , , , , , , , , , , , , , , , , ,

Page 60 of 135 Minis	stry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Evidence Guide	
Critical Aspects of Competence	 Demonstrates skills and knowledge in: 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
Underpinning Knowledge and Attitudes	resources available Demonstrate knowledge of: 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
Underpinning Skills	professional services, products) Demonstrate skills of: 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

Page 61 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 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
Resource Implications	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
Contact of	Observation / Demonstration with Oral Questioning Competence may be assessed in the work place or in a simulated.
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.
ASSESSITION	work place setting.

Occupational Standard: Tea processing Level II			
Unit Title	Standardize and Sustain 3S		
Unit Code	IND TPR2 19 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	Per	formance 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.

Page 63 of 135 Ministry of Education Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	------------------------

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

Variable	Range			
OHS requirement		but not limited to:		
Ono requirement	 Are to be practice: may inclusted and inclusion and handling enterprise and subsection. Personal under leg workplace. Safe oper to the contreatment. Emerger may not equipme. 	 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. 		
Cofety equipment				
Safety equipment and tools		but not limited to:		
and tools	• glove	sks / goggles		
	working (cloth		
	first aid	CIOTT		
	safety sh	200		
Tools and equipm	·	but not limited to:		
10013 and equipm	• paint	but not innited to.		
	• hook			
	sticker			
	• signboar	d		
	• nails	u		
	• shelves			
	• chip woo	ad.		
	• sponge	d		
	• broom			
	pencil			
	•	board/ tools board		
Tools and technic				
SS Job Cycle Charts				
	• Visual 59			
	The Five			
		lization level checklist		
	• 5S check			
Page 64 of 135	linistry of Education	Tea Processing	Version 1	

Page 64 of 135 Min	istry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Relevant procedures	 The five Whys and one How approach(5W1H) Suspension Incorporation Use Elimination 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.		
Competence	 Standardize and sustain 3S activities by applying appropriate tools and techniques. 	
Underpinning	Demonstrates knowledge of:	
Knowledge and	Elements of Kaizen	
Attitudes	Ways to improve Kaizen elements	

Page 65 of 135 Ministry of Educ Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	--	------------------------

	 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.

NTQF Level III

Occupational Standard: Tea Processing Level III			
Unit Title	Inspect Quality of Raw Materials and Production		
Unit Code	IND TPR3 01 0613		
Unit Descriptor	This unit describes the skill and knowledge of inspecting of transported green leaf quality at factory gate which includes inspection of amount of acceptable leaf; inspection of proportion of immature shoots and checking the amount of course leaf (unacceptable leaf)		

Elements	Performance Criteria
Inspection for Acceptable leaf standard	1.1 Production in tea is the number of crop shoot multiplied by weight of each shoot.
otandara	1.2 Generally, it has been known that the finer portion of crop shoot such as apical bud and first leaf influence the quality of made tea positively.
	1.3 Whereas courser leaf such as third and fourth and internodes of the shoot depressed the quality.
	1.4 Greater proportion of immature leaf harvesting leads to crop loss due to low volume. On the other hand courser leaves affect the quality adversely.
	1.5 In economics of tea, it has been recommended that the production of row material green leaf should comprises minimum 75 % acceptable leaf, 1-2 % immature shoots and 10-20 % course leaf.
	1.6 <i>Leaf count</i> of green leaf will be done based on the above recommendation.
Inspection of unacceptable leaf	2.1 Unacceptable leaves are leaves which are courses or immature to be processed.
icui	2.2 If the proportion of unacceptable leaves become more and beyond the seated recommendation, the production leads to poor quality and/or losses of yield.
3. Leaf Inspection procedures	3.1 Leaf Inspection is also known as leaf count.
procedures	3.2 The leaf inspector should inspect the leaf before passing the factory gate.
	3.3 The leaf count and inspection are done at each load of the production lot.
	3.4 A representative sample of the leaf is taken.
	3.5 Bulk the sample without damaging the leaf and take 100 shoots randomly from the bulk.
	3.6 Categories the randomly selected shoots as acceptable leaf (immature shoots; 2leaves and a bud and 3 soft leaf and a bud) and unacceptable leaf 3 leaves and a bud and more; damaged leaves etc.).

Tea Processing Ethiopian Occupational Standard Version 1 July 2013

Ministry of Education Copyright

Page 68 of 135

3.7 The percentage of immature leaves is checked if it is more than 4%.
3.8 If the acceptable leaves percentage is more than 75 % and the immature proportion is less than 2.5 %, the counted leaf is good and acceptable leaves for processing.
 3.9 All inspection output should be registered well for improvement and recording purpose.
3.10 Occupational Health and Safety (OHS) instrument will be practiced during the process of leaf inspection.

Variables	Range	
Leaf count	May Include:	
	The scope of this work covers inspection of the quality of row	
	material and production and conduct leaf count to determine the quality of row material.	
Occupational	May Include:	
Health & Safety	,	
(OHS)	Wearing synthetic gloves	
,	protective clothes	
Tools and	May Include:	
Equipment	Weigh Bridge	
	Bags	
	Basket	
	Leaf Inspection sheet	
	transporting tractors (vehicles)	
	trailers	
	Weight balance	
	registering books and calculators	
Types and Sources	May Include:	
of Information	From tea hand book.	
	From manual prepared by experts	

Evidence Guide		
Critical Aspects of Competence	Must demonstrate knowledge and skills competence to: Understand the type of leaf standard for the application of leaf count Differentiate the nature of acceptable and unacceptable leaves	
Underpinning Knowledge and Attitudes	 Describe the meanings of mathematical calculations Demonstrate knowledge of: The leaf type of tea Know plucking standard Mathematical knowledge Types of leaf Leaf standard Interpretations of leaf count Uses of equipment for the application of leaf count 	

Page 69 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Underpinning Skills	 Demonstrate skills to: use all Equipment components to operate inspection of green leaf operate the equipments using different keys of instruments interpret figures which is calculated using calculator to 	
	 Interpret figures which is calculated using calculator to inspect leaf quality record log information using the interface system 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	Competence may be assessed through:	
Assessment	Interview / Written Test	
	Observation / Demonstration with Oral Questioning	
Context of	Competence may be assessed in the work place or in a	
Assessment	simulated work place setting.	

Occupational Standard: Tea Processing Level III		
Unit Title	Operate Processes in a Tea Production System	
Unit Code	IND TPR3 02 0613	
Unit Descriptor	This is a specialist unit that applies to all sectors of the food processing industry. It covers the preparation and operation of a production or packaging system. A system typically describes the operation of an entire process which may be comprised of a number of sub-systems. System operation requires higher level planning and problem solving skills than are necessary when operating an individual sub-system or piece of equipment. It can also involve facilitating the work of others.	

EI	ements	Performance Criteria	
Prepare the system for operation		1.1 Supply of materials is confirmed to meet production/packaging requirements.	
	oporation	1.2 Work area is prepared for operation.	
		1.3 Services are confirmed as available and ready for operation.	
		1.4 Equipment is checked to confirm readiness for use.	
		1.5 The system is set to meets specifications.	
Operate and monitor the system		2.1 The system operation is started up according to company policy and procedures .	
		2.2 Control points are monitored to confirm performance is maintained within specification.	
		2.3 System outputs meet 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 system	3.1 The system is shut down according to company procedures.	
	System	3.2 Equipment is cleaned and maintained to meet cleaning schedule and procedural requirements.	
		3.3 Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures.	
	Contribute to continuous	4.1 Quality of process outputs is assessed against specifications.	
	improvement of	4.2 Opportunities for improvement are identified and investigated.	
	the system	4.3 Proposals for improvements are developed and implemented within company planning arrangements and according to company procedures.	

Page /1 of 135	f Education Tea Processing yright Ethiopian Occupational Standard	Version 1 July 2013
----------------	---	------------------------

5.	Record	5.1 Workplace system is recorded in the appropriate format.
	information	13.1 Workplace system is recorded in the appropriate format.

Variable	Range	
System operation	May Include:	
	Planning	
	co-ordination	
	troubleshooting within their level of authority	
Policy and	May Include:	
procedure	 Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial awards and agreements 	
Control points	May Include:	
•	food safety (critical)	
	quality and regulatory control points	
	inspection points	
Information	May Include:	
systems	print	
	screen based	
Workplace	May Include:	
systems	place to support production	
	packaging process	
Assistance	May include co-ordination ,planning and troubleshooting	

Evidence Guide	
Critical Aspects of	Must confirm appropriate knowledge and skills to:
Competence	Check completed work continuously against organization standard
	Identify production system and unit
	 Identify Planning and problem solving skill in system operation
	Check service delivered against organization standards
	Record basic information regarding quality performance
Underpinning	Demonstrate knowledge of:
Knowledge and	purpose and principles of the system
Attitudes	 equipment purpose and operation including an understanding of process control systems where used
	 technical knowledge of product/packaging characteristics and processing/packaging requirements
	codes and legislation relating to product and packaging requirements
	equipment calibration schedule and responsibilities
	type and purpose of sampling and testing conducted
	related work areas and departments
	 relevant procedures, specifications and operating parameters relevant systems and legislative responsibilities in areas such as human resources, food safety, quality, occupational health and safety and environmental management

Page 72 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
--	---	------------------------	--

Underpinning Skills	 industrial awards and agreements relating to system operation hazards, risks, controls and methods for monitoring processes within the system maintenance and cleaning requirements of equipment in system process improvement procedures and related consultative arrangements troubleshooting procedures and problem solving techniques recording and reporting requirements Demonstrate skills to: liaise with relevant work areas to confirm or secure necessary materials, services, equipment and labor to meet production requirements confirm that all equipment within the system meets hygiene and sanitation standards, all safety guards are in place and equipment is ready for operation confirm that materials and/pr packaging consumables have been cleared for use monitor implementation of set-up and start up procedures. This may involve monitoring the use of check sheets by others monitor observance of work procedures and systems monitor materials flow and work-in-progress through the system confirm that the system operates within specified parameters and control points are monitored determine responses to out-of-specification results or nonconformance within level of responsibility co-ordinate batch/product changeovers communicate information effectively plan maintenance and cleaning procedures to minimize disruption monitor operating efficiencies of the system and investigate, resolve and/or report problems review and maintain procedures to support system improvements
Resources	Access is required to real or appropriately simulated situations,
Implication	including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a simulated
Assessment	work place setting.
ASSESSITIETIL	work place setting.

Page 73 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
--	---	------------------------	--

Occupational Standard: Tea Processing Level III		
Unit Title	Operate Withering Process	
Unit Code	IND TPR3 03 0613	
Unit Descriptor	This unit includes the skill and knowledge of offloading of	
	leaves to the withering trough, the spreading of green leaf on	
	the withering troughs, regular reshuffling, and application of	
	cold/hot air in order to perform physical and chemical withering.	

Elements	Performance Criteria
Leaf offloading, Spreading and leaf reshuffling	Green leaf is offloaded from the trailer using monorail machines.
iodi roonaming	1.2 Leaf is spread on the withering trough based on the standard thickness.
	1.3 The leaf should be reshuffled in regular interval to obtain uniform withering.
	1.4 Leaf should be carefully handled at all times to avoid bruising and mechanical damage which brings uncontrolled fermentation.
Application of Air blow	2.1 Ambient air will blow to the leaf to lower the developed temperature.
	2.2 Air blow may facilitate physical withering (loss of water) and changes in chemical content.
	2.3 Air blow may help to attain the right moisture content of withered leaf with in specific processing time.
	2.4 In this case, optimum moisture content of withered leaf will be further described by wither ratio; weight of withered leaf/made tea.
	2.5 Application of hot air blow sometimes requires creating hygrometric differences between the leaf and the atmosphere.
3. Physical and Chemical Withering	3.1 Physical withering is the loss of water from the withered leaf.
vialoning	3.2 Chemical withering is the desired change in chemical contents in the leaf.
	3.3 Both withering types are always made by taking account of an <i>Occupational Health and Safety (OHS)</i> and environmental impact.

Variables	Range
Withering	May include the scope of this work covers the receiving of green leaf from the tea estates, offloading to the trough, withering the leaf to the desired moisture content using different methods and inspects the withering process at various periods.

Page 74 of 135	nistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Occupational Health	May Include:	
& Safety (OHS)	 Wearing synthetic gloves and protective. 	
	Shoes to keep sanitation	
Tools and Equipment	May Include:	
	Monorail	
	Withering	
	trough	
	Withering fan	
	radiator	
	steam pipes	
	• boiler	
	• steams	
	fuel wood	
Types and Sources	May Include:	
of Information	From tea hand book.	
	From manual prepared by experts.	
	Manuals of the machines	

Evidence Guide		
Critical Aspects of Competence	 Must demonstrate knowledge and skills competence to: Offload the green leaf to the withering trough without mechanical damage of the leaf Application of green leaf spreading for uniform leaf distribution on the withering trough Keep uniform withering process through reshuffling the leaf Understand the directions of air blow and uses of hot air 	
Underpinning Knowledge and Attitudes	 Demonstrate knowledge of: Tea leaf nature and standards Role of air blowing on the process of withering Impact of withering on quality production Uses of equipment for the application of leaf handling Machine operation Tea leaf nature 	
Underpinning Skills	 Demonstrate skills to: use all hardware components to operate withering of green leaf operate the equipments using different keys the instruments Practice the degree of withering process using hands Operate instrument of moisture meter to know the water content of the leaves record log information using the interface system 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 	

Page 75 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

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

Occupational Standard: Tea Processing Level III	
Unit Title	Operate Rolling and Cutting Process
Unit Code	IND TPR 03 04 0613
Unit Descriptor	This unit includes the skills, knowledge and attitudes required to perform sifting of withered leaf; transporting the withered leaf to the rote vane; leaf maceration; crushing Tearing and curling process with sets of CTC machines.

Elements		Performance	Criteria	
Sifting of Withered I	eaf		red leaf is fed over the sifting ma small stone and other inert materia	
			object can be allowed to pass to mage will occur on the rotervane.	the rotervane as
		1.3 The resid	lual that come under this sifter sho y.	ould be removed
2. Transporti withered let the roterval	eaf to		nat spills off the end of the sifter is to veyor to the rotervane.	ransported on
the roterve	1110	2.2 This conv	eyer is fitted with a full width perma	nent magnate.
			ne of the transported leaf via the co red and regulated with the capacity	•
3. Leaf mace	eration	3.1 The wither rotervane.	ered leaf should be reduced its size	to smaller using
			ess is called leaf maceration, which ed leaf for CTC cut.	preconditioned
		3.3 It is important activities as the efficiency of CTC will increase with macerated leaf.		
	inspected	naceration process by the retervane by the sounds in the rotervane and he macerated leaf.		
Tearing;	4. CTC, (Crushing; Tearing; Curling)		by the teeth moving of the rollers age ferent RPM.	ainst each other
Curing)			ine has instant action that reduces t macerated leaf to smaller size.	the size of the
		gle and speed of the roller teeth are ropriate leaf cut.	e made important	
		and sharp	ne chased teeth; speed and alignments of the teeth are very important during rolling process.	
			of has to pass under the magnet roots of the roller better the damage of the roller better the contract of the roller better better better the roller better better better the r	
D 77 (405	Minis	try of Education	Tea Processing	Version 1

Page 77 of 135	Ministry of Education	Tea Processing	Version 1
Page 77 01 135	Copyright	Ethiopian Occupational Standard	July 2013

4.6 Tools and equipment are made mandatory for the application of rolling and leaf maceration.
4.7 Therefore providing sufficient transport to move the tender leaf to factory is important.
4.8 Rolling and leaf maceration is always made by take account of an Occupational Health and Safety (OHS) and environmental impact.

Variables	Range
Tools and	May Include:
Equipment	Sifter
	Rotervane
	CTC machines
	Conveyor
	Chasing
	lath machines
	magnet and chasers
Rolling and	May Include:
maceration	The scope of this work covers the maceration, rolling and
	cutting of leaves so as to get different grades of tea;
	sharpening of the rollers at the right depth and angle;
	adjustment of the rollers; sanitation of the CTC machine
Occupational	May Include:
Health & Safety	Install protecting screen to roller and CTC machine in order to
(OHS)	avoid accidents
	Wearing synthetic gloves, glass and protective
Types and Sources	May Include:
of Information	From tea hand book.
	From manual prepared by experts.
	Manuals of the machines
Required	May Include:
knowledge	Machine operation
	Impact of cutting on quality of made tea
	Effect of roller sharpening on quality of tea

Evidence guide	
Critical Aspects of	Must demonstrate knowledge and skills competence to:
Competence	Applying appropriate roller sharpening on quality of tea
	 Degree of withering and leaf Maceration process on the output of CTC machines
	Time of rollers due for sharpening (For example every 100 hrs)
	The machinery; conveyor belts and floors are kept clean
Underpinning	Demonstrate knowledge of:
Knowledge and	Appropriate leaf cutting by rotervane and rollers
Attitudes	Nature of the tea leaf
	 Impact of leaf maceration and cutting on quality production

Page 78 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	<u> </u>
Underpinning Skills	 Uses of equipment for the application of leaf maceration and cutting Machine operation Impact of cutting on quality of made tea Effect of roller sharpening on quality of tea Demonstrate skills to: use all hardware components to operate rolling and cutting of green leaf operate the equipments using different keys the instruments Interoperate feelings of hands to know the degree of leaf cutting and rolling quality record log information using the interface system 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	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Occupational Standard: Tea Processing Level III		
Unit Title	Implementing Fermentation Process	
Unit of Code	IND TPR 03 05 0613	
Unit Descriptor	This unit specify the peculiar characteristics of black tea to other type of tea includes, oxidation (fermentation) of catechins by polyphenol oxidase to polyphenols; requirement of fermentation; fermentation factors; time of fermentation on continues fermenting machine(CFU).	

Elements	Performance Criteria
Oxidation of Catechins	1.1 The well macerated and cut leaf called Dhool will undergo good fermentation as the particles are fully exposed to oxygen.
	1.2 During the process the catechins will be oxidized by the enzyme called polyphenol oxidase to form polyphenols.
	1.3 Polyphenols are further breakdown into Theaflavins (TF) and Thearubgins(TR).
	1.4TFs are made responsible for quality parameters like Brightness of the liquor.
	1.5TRs are made responsible for color of blackness, strength (briskness).
Fermentation Requirement	2.1 The withered leaf should be in a good quality and undamaged before maceration process.
	2.2 Fermentation should resume just after maceration.
	2.3 There should be good suppy of monitored oxygen.
	2.4 Temprature in the processing room as well as in the fermentation machines should be regulated by air flow, humidifyers and recorded by temperature sensors (Thermometers).
	2.5 All process in the fermenting machines should be carried out in clean condition.
3. Factor Affecting Fermentation	3.1 Temperature affects the oxidation reaction and oxygen intake.
	3.2 Moisture affects fermentation processes. High or under withered leaf has low oxidation rate.
	3.3 Degree of maceration and rolling affects the rate of fermentation process.
	3.4 Planting materials i.e. varieties varied in their degree of fermentation.
4. Time of Fermentation	4.1 The correct fermentation time to obtain the balance between TFs :TRs to make bright and brisk tea with reasonable color and strength.

Page 80 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
--	---	------------------------	--

4.2 Fermentation time can be seated on the CFM speed controlling unit.
4.3 Tools and equipment for the application of fermentation are made mandatory.
4.4 Therefore providing sufficient transport to move the tender leaf to factory is important.
4.5 Fermentation is always made by taking account of an Occupational Health and Safety (OHS) and environmental impact/

Variables	Range		
Fermentation	May Include:		
	The scope of this work is to understand the correct		
	fermentation time so as to produce acceptable and quality		
	tea		
Tools and	May Include		
Equipment	Continuous Fermentation		
	Machine		
	Air ducts		
	Humidifier		
	Control board		
Occupational	May Include		
Health & Safety	Wearing synthetic gloves.		
(OHS)	Wearing protective.		
Types and Sources	May Include		
of Information	From tea hand book.		
	From manual prepared by experts.		

Evidence guide	
Critical Aspects of Competence	 Must demonstrate knowledge and skills competence to: Understand the effect of different fermentation factors on the production of quality tea Ability to determine the optimum time of fermentation
Underpinning Knowledge and Attitudes	 Demonstrate knowledge of: Basic concept of tea fermentation Tea Withering Impact of tea fermentation on quality production Uses of equipment for the application of fermentation Tea making Importance of fermentation time on production of quality tea
Underpinning Skills	Demonstrate skills to: use all hardware components to operate fermentation of green leaf operate the machine using different keys the instruments visual ability to inspect and know the right color of fermentation

Page 81 of 135	Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
----------------	------------------------------------	---	------------------------	--

	 Sensory capability to sense aromatic chemicals during the process of fermentation record log information using the interface system 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
Implication	information on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Occupational Standard: Tea Processing Level III			
Unit Title	Monitoring and Operating Drying Operation		
Unit of Code	IND TPR 03 06 0613		
Unit Descriptor	This unit specifies to obtain a finished product that can be handled and stored and to arrest the fermentation at the stage that gives the most desirable liquoring properties; methods of drying and drying factors.		

Elements	Performance Criteria
Dry the fermented tea	1.1 At optimum fermentation time, all enzymatic reaction and oxidation should be arrested.
	1.2 The fermented tea is put to the feeding hopper on the top section moving in conveyor belt fashion into the drier.
	1.3 The objective of <i>drying</i> is to remove moisture from the leaf and make stable product with good keeping quality.
	 1.4 Around 77.5 kg moisture evaporates during the process of drying.
	1.5 This removal of water requires heat energy which will be obtained from the steam boiler or direct heating.
	1.6 Generally 100 kg of fresh leaf produces 22.5 kg of dried made tea. Thus tea undergoes moisture loss from 70 % to 3-4 % in drying process.
Drying Method	2.1 The latest dryer machines have two compartments where effective drying is going on. These are hot side and warm compartments.
	2.2 The wet tea first introduced in hot section of with the object of inducing quick drying and rapid ending of fermentation.
	2.3 The dryer has a hot air and cold air ducts. The hot air having a temperature of 140-150 °c will blow in first compartment in order to removing the moisture.
	2.4 The compartments are mounted by temperature sensors which help to regulate and control the temperature.
	2.5 The air flows which come from the hot and cold side will be blow by two independent fans, the flow volume of the air is further controlled by other regulators.
	2.6 Similarly, cyclone fans are mounted on the upper side of the dryer which help the fluidization of dried tea.
	2.7 Once the tea is getting dry, it will start moving towards the discharging mouth.

Page 83 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Drying factors and considerations	3.1 There are several factors which limit the drying efficiency.
Considerations	3.2 Inlet and exhaust temperatures.
	3.3 Thickness of the spread may affect also the process of drying.
	3.4 Rate of moisture loss shouldn't exceed 4% per minute.
	3.5 Any hot air leakage may brings poor drying process, reduce the efficiency of dryer output and increase energy cost.
	3.6 Fan speed and direction may alter air volume and operational integrity of the fan and needs frequent inspections.
	3.7 Tools and equipment for the application of drying is mandatory. Therefore providing sufficient transport to move the tender leaf to factory is important.
	3.8 Drying is taken account of an <i>Occupational Health and Safety (OHS)</i> and environmental impact.

Variables	Range
Drying	May Include
	The scope of this operation includes: ending of fermentation at the right time, putting of fermented tea to the drier, control of inlet and outlet temperatures; fan speed, directions and compatibility; rate of moisture loss and fluidization of tea particles; moisture content of tea t the drier mouth.
Tools and Equipment	May Include
	Shovel
	Drier
	Boiler
	Water
	Fuel wood
	Sack
Occupational Health &	May Include
Safety (OHS)	Wearing synthetic gloves
	Eye goggles
	Mouth muffs
	Fire extinguisher
Types and Sources of	May Include
Information	From tea hand book.
	From manual prepared by experts.
	Machines manuals

Evidence guide					
Critical Aspects of Must demo		Must demo	nstrate knowledge and skills competence to:		
Competence • Pro		 Provide 	ed the hot /cold air for drying		
Page 84 of 135 Ministry of Education Copyright			Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	

Apply air using cyclone fans Control readings from temperature sensors Monitor the feeding and thickness of the wet tea Checked the output capacity of the drier against the designed capacity. Check the moisture content of the dried tea at dryer moutly Demonstrate knowledge of: Time of fermentation Impact Drying on quality production Uses of equipment for the application Drying Temperature reading Tea processing concept Machines operation Underpinning Skills Underpinning Skills Demonstrate skills to: use all hardware components to operate drying of green leaf operate the dying machine using different keys the instruments Practice the degree of drying process using hands Operate instrument of moisture meter to know the water content of the drying leaves Uses sensory and visual ability to understand the drying process Interoperate figures of made tea: green tea ratio which is calculated using calculator record log information using the interface system according to enterprise procedures
use oral communication skills/language competence to ful the job role as specified by the organisation, including questioning, active listening, asking for clarification and
seeking advice from supervisor work cooperatively within culturally diverse workforce
Resources Implication Access is required to real or appropriately simulated situation including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Competence may be assessed through:
Assessment • Interview / Written Test
Observation / Demonstration with Oral Questioning
Context of Competence may be assessed in the work place or in a
Assessment simulated work place setting.

Page 85 of 135 Ministry of Education Copyright	n Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	--	------------------------

Occupational Standard: Tea Processing Level III		
Unit Title	Operate Sorting and Grading o Made Tea	
Unit Code	IND TPR 03 07 0613	
Unit Descriptor	This unit specifies the removal of fibers from made tea after the drying operation. The process is called fiber extraction using fiber extractor (pre-sorter) machine; Sorting of different tea grades and types using tea sorter machine.	

Elements	Performance Criteria
Fiber Extractions	Once the tea is dried well and out from the dryer, the next process will be removing the imbedded fibers from the made tea.
	1.2 Several set of electrostatic PVC rollers are set to extract any stalk and fiber laying on the tea.
	1.3 These rollers are set to obtain maximum fiber extraction with minimum removal of tea.
	1.4 Efficiency of fiber extractor depends on plucking standard; thickness of the leaf; clearance of roller and tea and roller diameter.
2. Sorting	2.1 Bulk tea after drier contains heterogeneous mix of tea having different particle size and need grading.
	2.2 At this stage these mixed tea grades should be separated in their respective sizes.
	2.3 The sorter machine has serious of sieves having different whole size.
	2.4 The hole size of the serious of sieves will be fine when we go down.
	2.5 In each level of sieves different sized tea will be separated based on their particle size. Finally, uniform sized of tea will be out from each sieve/
	2.6 Grading of the bulked tea (make uneven tea to even) is one marketing requirement in tea trading.
	2.7 Generally there are three main sizes namely whole leaf grades (larger tea particles); broken grades (medium sized) and Fanning and Dust.
	2.8 Commonly used Tea grades in Ethiopia Tea Market are broken Pekoe BP/BP1; Pekoe Fanning PF/PF1; Pekoe Dust PD; Dust D/D1; Broken Mixed Fanning BMF.
	2.9 Tools and equipment for the application of Sorting are made mandatory.
	2.10 Therefore providing sufficient transport to move the tender leaf to factory is important.

Page 86 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

2.11 Sorting is always made by taking account of an
Occupational Health and Safety (OHS) and environmental
impact.

Variables	Range		
Tools and	May Include:		
Equipment	Shovel		
	Sack		
	Needle		
	Sewing machine		
	Fiber extractor		
	Pallet		
	Sorter		
Sorting	May Include:		
	The scope of this operation includes activates in removal of		
	fibers and stalk from the tea and grading and sorting of bulked		
	tea in respective of their particle size.		
Occupational	May Include:		
Health & Safety	Wearing synthetic gloves,		
(OHS)	Eye goggles		
	mouth muffs		
	Use fire extinguisher		
Types and	May Include:		
Sources of	From tea hand book.		
Information	From manual prepared by experts.		
	Machines manuals		

Evidence Guide	
Critical Aspects of Competence	 Must demonstrate knowledge and skills competence to: Set and determine the clearance of the PVC rollers of the fiber extractors for efficient fiber removal Frequent check on the process of fiber extraction Feed appropriate amount of tea for success in production of fiber free tea If necessary, repeat the process Separation of mixed tea particle size is very important as the
	 tea is marketed and valued based on their size Avoid the probable incidence of grades during sorting process Check the sorter machine is operating as per the requirement
Underpinning Knowledge and Attitudes	 Demonstrate knowledge of: Nature of the tea leaf grades Impact of Sorting on quality production Uses of equipment for the application of Sorting and Grading
Underpinning Skills	Demonstrate skills to: use all hardware components to operate fermentation of green leaf operate the machine using different keys the instruments

Page 87 of 135 M	linistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 visual ability to inspect and know the right color and particle size of made tea Sensory capability to sense aromatic chemicals during the
	process of fermentation
	 record log information using the interface system 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	Access is required to real or appropriately simulated situations,
Implication	including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a simulated
Assessment	work place setting.

Occupational Standard: Tea Processing Level III		
Unit Title	Operate a Packaging and Labeling Process	
Unit Code	IND TPR 03 08 0613	
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a packaging and labelling process or sub-system.	

Elements	Pei	formance Criteria
Prepare the equipment process for operation	it and	Packaging components/consumables, materials and items to be packaged are confirmed and available to meet operating requirements.
operation	1.2	Cleaning and maintenance <i>requirements</i> 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/consumables are loaded or positioned as required to meet packaging requirements.
	1.6	Equipment performance is checked and adjusted as required.
		Pre-start checks are carried out as required by workplace requirements.
Operate a monitor the process		The process is started and operated according to workplace procedures.
process	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.

Page 89 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	2.9 Labeling of the tea will help to identify the various tea production in their quality; production date; grade etc.
	2.10Well labeled tea will have the following information. Name of the producers; Type of production; Production time; Grade; Batch(Invoice) number etc.
3. Shut down the	3.1 The appropriate <i>shutdown procedure</i> is identified
process	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:
	vacuum packing
	Aluminium foil packing
	PVC lined packing
	Aluminium cane packing
	Paper packing
	Potch packing
Requirements	May include:
•	 the Food Standards Code, including labelling, weights and measures legislation
	 legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Typical equipment	May include:
	conveyor systems
	• filling
	sealing
	wrapping
	thermo-form equipment
	case packers
	• bundlers
	ink jet coders
	• labellers
	tea bag machine
Processes	May include:
	the use of process control panels and systems
Workplace records	May include:
	Standard Operating Procedures (SOPs)
	specifications
	 production schedules and instructions
	manufacturers' advice
	standard forms and reports
Shutdown	May include cleaning (in some cases cleaning may be carried
procedures	out by a dedicated cleaning crew

Page 90 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
--	---	------------------------	--

Policies and	May include:
procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

	<u> </u>
Evidence Guide	
Critical Aspects of Competence	 Must confirm appropriate knowledge and skills 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

Page 91 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

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 isolation, lock out and tag out procedures and responsibilities responsibilities isolation, lock out and tag out procedures and responsibilities responsibilities 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 cleaning and sanitation procedures where relevant cleaning and sanitation procedures where relevant 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		
 packaging integrity testing where relevant cleaning and sanitation procedures where relevant Demonstrate skills to: 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 		 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
 cleaning and sanitation procedures where relevant Underpinning Skills Demonstrate skills to: 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 		· ·
Underpinning Skills Demonstrate skills to: 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		
 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 	Underninning Skills	
 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 	Onderprining Okins	 access workplace information to identify packaging requirements select, fit and use personal protective clothing and/or
 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 		
		 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

Page 92 of 135	Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
	oop, ng. n	Zimopian Goodpanonai Giandara	Gaily 2010

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

Occupational Standa	Occupational Standard: Tea Processing Level III	
Unit Title	Perform Basic Tea Test	
Unit of Code	IND TPR 03 09 0613	
Unit Descriptor	This unit of competency covers the ability to perform tests and measurements using standard methods with access to readily available advice from supervisors.	

Elements	Performance Criteria
Tea testing	1.1 Tea testing will be done to evaluate the quality of tea.
	1.2 The method involves testing samples of predetermined weight and of a predetermined volume of water for each sample.
	1.3 The water should be made fresh and clean.
	1.4 The tested sample must be dried and not to be put in wet pots.
Tea Sampling for testing	2.1 In order to test and check the tea quality, sample will be prepared from the bulk (packed) tea.
	2.2 Sample should be representative of the whole bulk tea.
	2.3 The samples to be compared are put up at the same time and are all liquored in the same batch.
	2.4 The sample should be correctly marked and care must be taken not to switch samples at the time of weighing out and liquoring them.
	2.5 The sample bag will be aluminum foiled and water proof.
3. Tea Quality parameters	3.1 Tea quality will be evaluated through leaf appearance; liquor and infusion.
	3.2 Leaf appearance indicates the physical condition of made tea. Whereas liquor and infusion represent the quality of made tea after boiling.
	3.3 Quality comments and advice will be come under these three headings.

Variables	Range	
Unit scope	May Include:	
	 The scope of this operation includes method of testing of tea in order to determine the product of tea keep quality standard 	
Occupational Health	May Include:	
& Safety (OHS)	Wearing synthetic gloves	
	eye goggles	
	 mouth muffs for protection of tea dust 	

Page 94 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

Tools and Equipment	May Include:
	Laboratory spoon
	• cups
	sampling bag
	weighing balance plates kittle
	moisture tester
Types and Sources	May Include:
of Information	From tea hand book
	From manual prepared by experts
	Machines manuals

Evidence Guide			
Critical Aspects of	Must confirm appropriate knowledge and skills to:		
Competence	 accurately interpret enterprise procedures or standard methods 		
	 complete all tests within the required timeline without sacrificing safety, accuracy or quality 		
	 demonstrate close attention to the accuracy and precision of measurements and the data obtained 		
	 maintain the security, integrity and traceability of all samples, data/results and documentation 		
Underpinning	Demonstrate knowledge of:		
Knowledge and	concepts of metrology		
Attitudes	the international system of units (SI)		
	purpose of test		
	 principles of the standard method 		
	pre-use equipment checks		
	 relevant standards/specifications and their interpretation 		
	 sources of uncertainty in measurement and methods for control 		
	 enterprise and/or legal traceability requirements 		
	 interpretation and recording of test result, including simple calculations 		
	 procedures for recognition/reporting of unexpected or unusual results 		
	relevant health, safety and environment requirementsInstrument reading		
	Tea processing concept		
	Sensory testing		
Underpinning Skills	Demonstrate skills to:		
	 interpreting enterprise procedure or standard methods accurately 		
	 using safety information, such as Materials Safety Data 		
	Sheets (MSDS) and performing procedures safely		
	checking test equipment before use		
	completing all tests within required timeline without sacrificing safety, accuracy or quality		

Page 95 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
--	---	------------------------	--

	 calculating, recording and presenting results accurately and legibly 	
	 maintaining security, integrity and traceability of all samples data/results and documentation 	
	 cleaning and maintaining equipment 	
Resources	Access is required to real or appropriately simulated situations,	
Implication	including work areas, materials and equipment, and to	
	information on workplace practices and OHS practices.	
Methods of	Competence may be assessed through:	
Assessment	Interview / Written Test	
	Observation / Demonstration with Oral Questioning	
Context of	Competence may be assessed in the work place or in a	
Assessment	simulated work place setting.	

Occupational Standa	Occupational Standard: Tea Processing Level III	
Unit Title	Undertake Tea Processing Maintenance Activities	
Unit of Code	IND TPR 03 10 0613	
Unit Descriptor	This competency standard covers basic maintenance procedures required to support machinery operations. It involves non-specialist skills to perform basic servicing and repairs on a range of machinery according to scheduled maintenance programs. Competency requires an awareness of workplace safety, and positive environmental practices associated with maintenance activities. The work is likely to be carried out under limited supervision with checking only related to overall progress within established enterprise routines and procedures.	

Elements		Performan	ce Criteria	
Prepare for maintenance			enance plans are accessed and und aking maintenance work.	derstood prior to
			and supplies are selected appropriements and confirmed against maint	
		accord	are inspected for serviceability and r ling to manufacturers' specifications ements .	
		are ide	pational Health Safety hazards in the entified, risk assessed and reported a rise requirements.	
2. Perform scheduled maintenand	ce	used, ı	le personal protective equipment maintained and stored according to and Safety requirements.	
		machi	ng, lubrication and other basic serv inery are carried out according to ma cations and enterprise requirements	anufacturer's
			nent is adjusted according to manufactions and enterprise requirements	
		2.4 Basic of mecha	diagnostic techniques are applied ar inical.	nd made
			are identified and rectified accordin acturer's specifications.	g to
			serious or complex faults are reporte ling to enterprise requirements.	d for referral
3. Complete maintenance activities			are cleaned and stored according to and Safety and enterprise requirem	•
CONTRICT		dispos	from maintenance activities is collected or recycled according to enterprise namental requirements.	•
Page 97 of 135		of Education opyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013

3.3 Work areas are cleaned, returned to operating condition and maintained according to Occupational Health and Safety and enterprise requirements.
3.4 Relevant information is documented according to industry and enterprise requirements.

Variables	Range	
Maintenance Plan	 May Include: details of scheduled maintenance and servicing requirements and procedures, tools and supplies required to undertake maintenance tasks, pre-start and safety checks for tools and machinery, mechanical diagnostic procedures, common mechanical faults and adjustment or repair procedures, current operational details, Supervisors instructions and reporting requirements 	
Tools and Supplies	 May Include: hand tools, hand held power tools, grease guns, safety equipment, cleaning and maintenance supplies including grease, fuel, oil, chemicals, water steam, power and air 	
Preparation	 May Include: routine safety and pre-start checks, and procedures involving cleaning, lubricating, hand sharpening, priming pumps, clearing filters, basic repairs, tightening and adjustments 	
Enterprise Requirement	 May Include: Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), Work notes and plans, product labels, manufacturers specifications, operators' manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), supervisors oral or written instructions 	
Organizational Health Safety	 May Include: operating and maintaining machinery including hydraulics and guarding of exposed moving parts hazard and risk control manual handling including lifting and carrying the provision of safety decals and signage handling, application and storage of hazardous substances outdoor work including protection from solar radiation, dust and noise lock out or danger tag procedures 	
Ministr	ry of Education Tea Processing Version 1	

Page 98 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 protection of people in the workplace the appropriate use, maintenance and storage of personal protective clothing and equipment
Hazards	May Include:
	exposure to loud noise and fumes, solar radiation, dust, and hazardous substances
	It may also include oil and grease spills, electricity, mechanical malfunctions and entanglement with machinery from exposed moving parts including hydraulics
Personal protective	May Include:
equipment	 boots, hat/hard hat, overalls, gloves, protective eyewear, safety harness, hearing protection, respirator or facemask, sun protection (sun hat, sunscreen)
Pacia Santiaina	May Include:
Basic Servicing	
	 greasing and lubricating, carrying out checks of the cooling system, fuel, grease and oil, battery levels, inspections of tyre pressures, fan belts, leads, lines, connections, air filters, electrical, hydraulics, steering, lighting, transmission, and confirmation of safety guards, PTO stubs and shafts
Machinery	May Include:
•	Motorized equipment and implements
	Motorized machinery may include sprayers, tractors, mechanical pruners, harvesters, turf mowers, rotary hoes, chainsaws, hedge trimmers, winches, vehicles and motorcycles
Faults	May Include:
	damage, wear, malfunction or unsoundness
Environmental	May Include:
Practices	 the reduction of excessive noise and exhaust emissions, the safe use and disposal of maintenance debris including oil containers, fuel and chemical residues Preventative measures with regard to soil disturbance, dust and increased run-off flows caused by servicing, maintenance and cleaning activities
Relevant Information	May Include:
	 tool usage and operational faults or malfunctions, machinery servicing and repair procedures and outcomes,
	machinery performance and operational faults or malfunctions, damage details, and hazard and incident reports

Evidence Gui	de				
Critical Aspects of Must cor		Must confirm	rm appropriate knowledge and skills to:		
Competence		 accurately interpret enterprise procedures or standard methods complete all tests within the required timeline without sacrificing safety, accuracy or quality 			
Page 99 of 135 Ministry of Education Copyright			Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	

Underpinning Knowledge and Attitudes	 demonstrate close attention to the accuracy and precision of measurements and the data obtained maintain the security, integrity and traceability of all samples, data/results and documentation Demonstrate knowledge of: concepts of metrology the international system of units (SI) purpose of test principles of the standard method pre-use equipment checks relevant standards/specifications and their interpretation sources of uncertainty in measurement and methods for control enterprise and/or legal traceability requirements interpretation and recording of test result, including simple calculations 	
	 procedures for recognition/reporting of unexpected or unusual results relevant health, safety and environment requirements Instrument reading Tea processing concept Sensory testing 	
Underpinning Skills	 Demonstrate skills to: interpreting enterprise procedure or standard methods accurately using safety information, such as Materials Safety Data Sheets (MSDS) and performing procedures safely checking test equipment before use completing all tests within required timeline without sacrificing safety, accuracy or quality calculating, recording and presenting results accurately and legibly maintaining security, integrity and traceability of all samples, data/results and documentation cleaning and maintaining equipment 	
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 TestObservation / Demonstration with Oral Questioning	
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.	

Page 100 of 135	Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
-----------------	---------------------------------	---	------------------------

Occupational Standard: Tea Processing Level III		
Unit Title	Apply Raw Materials, Ingredient and Process Knowledge to Production Problems	
Unit Code	<u>IND TPR 03 11 0613</u>	
Unit Descriptor	This unit of competency covers skills and knowledge required to apply knowledge of ingredients and processes to troubleshoot typical problems that occur in preparing, processing and/or packaging product.	

Elements	Performance Criteria
Identify and respond to no conforming	1.1 Non-conformance in <i>raw materials/ingredients</i> is identified and reported according to workplace reporting requirements.
ingredients/ra	1.2 Causes of non-conformance are investigated and reported according to workplace reporting requirements.
	1.3 Corrective action is determined and implemented within level of responsibility and workplace <i>policy and procedures</i> .
	1.4 Action is taken to prevent recurrence of non-conformance.
	1.5 Action is reported according to workplace reporting requirements.
	1.6 Action is taken in <i>typical processing and techniques</i> to minimize problems.
Identify and respond to non- conforming	2.1 Processing parameters , stages and changes which occur during processing are monitored.
product and processes	2.2 Non-conformance in processing, handling and/or storage is identified and corrective action taken according to workplace <i>legislative requirements</i> .
	2.3 Causes of non-conformance relating to processing, handling and/or storage are investigated and reported according to workplace reporting requirements.
	2.4 Corrective action is determined and implemented within level of responsibility and workplace procedures.
	2.5 Action is taken to prevent recurrence of non-conformance.
	2.6 Action is reported according to workplace reporting requirements.
	2.7 Work is conducted in accordance with workplace environmental guidelines,

Variable	Range		
Ingredients/raw materials	May include manufacture	ingredients/raw materials are those product	used to
procedures procedu		work is carried out according to con regulatory and licensing requirements, and industrial awards and agreem	nts, legislative
D 404 640-	Ministry of Education	Tea Processing	Version 1

Page 101 of 135 Copyright Ethiopian Occupational Standard July 2013	Page 101 of 135	Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	-----------------	------------------------------------	---	------------------------

Typical processing	May include:
and related	raw materials/ingredient dispensing
techniques	preparation
	mixing and blending
	conditioning
	primary and further processing
	wrapping
	packing and storage
Typical process	May include:
parameters	temperature
	• time
	pressure
	flow rate
Legislative	relevant to this industry includes:
requirements	The Food Standards Code, including labeling, weights and
	measures legislation
	Legislation covering food safety, environmental
	management, Occupational Health and Safety (OHS), anti-
	discrimination and equal opportunity
Problem	May include:
minimization	Where recurrence of a problem cannot be prevented,
	procedures should be established to minimize the likelihood
	of recurrence and to identify any further incidents

Evidence Guide				
Critical Aspect Competence	s of	 Must confirm appropriate knowledge and skills to: describe required quality characteristics for raw materials an ingredients describe required processes to achieve production specifications identify common non-conforming materials and ingredients and causes identify common non-conforming processes and causes determine and undertake corrective action for non-conformances complete workplace documentation and report non-conformances apply food safety procedures 		w materials and action and ingredients and causes non-
Underpinning Knowledge and Attitudes Demonstrate basic cor material/ grades o common raw mate methods informati		 Demonstrate basic cormaterial/grades o common raw mate methods informati 	e knowledge of: mposition and function of each main ingredient used, such as awareness	s of ingredient able quality of uch as accessing
Page 102 of 135		of Education opyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013

	 the effect of variation in raw materials/ingredients on processing stages and final product outcome, including factors likely to cause variation, and scope to adjust or correct for variation at each processing stage appropriate handling and storage requirements for raw materials/ingredients and final product, and the effect of failing to meet required storage conditions the changes and reactions that occur through processing stages, including the signs and symptoms of poor/ unacceptable processing or equipment operation factors that affect the shelf-life of product the inter-relationships between processing stages and the effect of variation in processing parameters on process outcome and on final product, including factors likely to cause variation, and scope to adjust or correct for variation at subsequent process stages procedures for identifying and isolating non-conforming product troubleshooting information and techniques procedures and related documentation required to amend or introduce a new method or procedure, such as short term procedures for amending or updating specifications and processing parameters reporting requirements and responsibilities test methods to confirm raw material/ingredient and/or final product and its characteristics where relevant.
Underpinning Skills	product quality characteristics where relevant Demonstrate skills to:
	 identify requirements of ingredient/raw material characteristics within level of responsibility follow procedures to identify, remove/isolate and report nonconforming ingredients/materials and/or product according to workplace reporting requirements determine likely causes of non-conformance of ingredients/raw materials recognize indicators of unacceptable or non-conforming processing, handling and/or storage outcomes act promptly to identify, remove/isolate and report nonconforming product and/or processes access and apply workplace information relating to process troubleshooting investigate non-conformance to determine likely causes and report findings to appropriate personnel identify action required to correct non-conformance and implement within level of responsibility identify action required to prevent or minimize and control recurrence of non-conformance and implement within level of responsibility

Page 103 of 135	Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard
-----------------	------------------------------------	---

	 complete workplace records, including reporting nonconformance and documenting corrective actions according to work place recording procedures conduct tests to confirm raw material/ingredient and/or final product quality characteristics 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 Stand	dard: Tea Processing Level III		
Unit Title	Perform Stock Control Procedures		
Unit Code	IND TPR 03 12 0613		
Unit Descriptor	This unit encompasses the skills, knowledge and attitudes required to handle stock in a retail environment. It involves receiving and processing incoming goods, rotating stock, participating in stock takes, reordering stock and dispatching goods.		

Elements	ements Performance Criteria		
Receive and Process incoming goods		1.1 Cleanliness and orderliness in receiving bay are maintained according to store policy.	
		1.2Goods are unpacked using correct techniques and equipment in line with <i>store policy and procedure</i> .	
		1.3 Packing materials are removed and disposed of promptly according to store policy.	
		1.4 Incoming stock is accurately checked and validated against purchase orders and delivery documentation according to store policy.	
		1.5 Items received are inspected for damage, quality, use-by dates, breakage or discrepancies and recorded according to store policy.	
		1.6 Stock levels accurately recorded on store stock control systems, according to store policy.	
		1.7 Storage of goods arranged is secured according to store policy and legislative requirements.	
		1.8 Dispatched is stocked to appropriate area/department.	
		1.9 Price and code labels applied are stocked when required according to store policy	
Rotate Stock equipment		Stock rotation procedures are carried out routinely and accurately for merchandise and wrapping and packing materials according to store policy.	
	2.2 Excess stock is placed in storage or disposed of in accordance with store policy and legislative requirements.		
		2.3 Safe lifting and carrying techniques maintained in line with store occupational health and safety policy and legislative requirements.	
3. Particip Stock to		3.1 Stocktaking and cyclical counts are assisted with according to store policy/procedures.	
		3.2 Stock records documentation is completed according to store stock control system.	

Page 105 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	---	------------------------

3.3 Discrepancies in stock are recorded and <i>reported</i> to relevant personnel. 3.4 Electronic recording equipment is operated and maintained according to manufacturer's specifications. 4. Reorder Stock 4.1 Minimum stock levels are identified according to store policy. 4.2 <i>Stock</i> requisition forms or electronic orders are completed accurately 4.3 Undelivered stock orders are identified on stock system and followed up without undue delay. 5. Dispatch Goods 5.1 Goods to be returned to supplier identified and labeled with date, supplier and reason for return or referred to management if required. 5.2 Credit request documentation is completed according to store				
4. Reorder Stock 4. Minimum stock levels are identified according to store policy. 4.2 Stock requisition forms or electronic orders are completed accurately 4.3 Undelivered stock orders are identified on stock system and followed up without undue delay. 5. Dispatch Goods 5.1 Goods to be returned to supplier identified and labeled with date, supplier and reason for return or referred to management if required. 5.2 Credit request documentation is completed according to store		•		
4.1 Minimum stock levels are identified according to store policy. 4.2 Stock requisition forms or electronic orders are completed accurately 4.3 Undelivered stock orders are identified on stock system and followed up without undue delay. 5. Dispatch Goods 5.1 Goods to be returned to supplier identified and labeled with date, supplier and reason for return or referred to management if required. 5.2 Credit request documentation is completed according to store		• • • •		
4.3 Undelivered stock orders are identified on stock system and followed up without undue delay. 5. Dispatch Goods 5.1 Goods to be returned to supplier identified and labeled with date, supplier and reason for return or referred to management if required. 5.2 Credit request documentation is completed according to store	4. Reorder Stock	4.1 Minimum stock levels are identified according to store policy.		
followed up without undue delay. 5. Dispatch Goods 5.1 Goods to be returned to supplier identified and labeled with date, supplier and reason for return or referred to management if required. 5.2 Credit request documentation is completed according to store		· · · · · · · · · · · · · · · · · · ·		
date, supplier and reason for return or referred to management if required. 5.1 Goods to be returned to supplier identified and labeled with date, supplier and reason for return or referred to management if required. 5.2 Credit request documentation is completed according to store				
·	5. Dispatch Goods	date, supplier and reason for return or referred to		
procedure.		5.2 Credit request documentation is completed according to store procedure.		
5.3 Goods are stored securely while awaiting dispatch.		5.3 Goods are stored securely while awaiting dispatch.		
5.4 Delivery documentation is completed according to store procedures.		,		
5.5 Special delivery instructions are noted.		5.5 Special delivery instructions are noted.		
5.6 Items are packed safely and securely to avoid damage in transit.		, , , , , , , , , , , , , , , , , , , ,		
6. Follow Up Order 6.1 Delivery process is monitored to meet agreed deadlines.	6. Follow Up Order	6.1 Delivery process is monitored to meet agreed deadlines.		
6.2 Routine supply problems are handled or referred to management as <i>required</i> by store policy.				
6.3 Continuous liaison is made with buyers, store/departments, warehouse and suppliers to ensure continuity of supply.				
6.4 Stock is distributed according to store/department allocation.		6.4 Stock is distributed according to store/department allocation.		

Variable	Range			
Store Policies and	May include:			
procedures	Store Control			
	Dispatch			
Store Stock Control	May include:			
	Checking incoming or existing stock			
	Special Orders			
Reporting of Faults	May include:			
	Telephone			
	• Fax			
	Letter			
	Face to face			
Handling techniques	May include:			
of Stock	Stock Characteristics			
	Industry codes of practices			

Page 106 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Legislative	May include:
requirements	Occupational health and safety
	 hazardous substances and dangerous goods
	labeling of workplace substances
	waste removal and environmental protection
	 transport, storage and handling of goods

Evidence Guide	
Critical Aspects of Competence	 Must confirm appropriate knowledge and skills to: Consistently applies store policies and procedures, industry codes of practice, relevant legislation and statutory requirements in regard to stock control. Consistently applies safe work practices in the manual handling and moving of stock, according to occupational health and safety legislation/regulations/codes of practice. Interprets and applies manufacturers' instructions with regard to handling stock and using relevant equipment. Receives and processes incoming goods and dispatches outgoing goods according to store policies and procedures. Rotates stock and reorders stock/maintains stock levels according to store policies and procedures Assists with stocktaking and cyclical counts according to store policies and procedures Interprets and processes information accurately and responsibly
Underpinning Knowledge and Attitudes	 Demonstrate knowledge of: store policy and procedures in regard to use and operation of store information technology systems, including: use and maintenance of hardware and software systems solutions to problems and breakdowns operation of equipment relevant legislation and statutory requirements, including: consumer law credit procedures OHS relevant industry codes of practice store products and services range, including pricing structure manufacturer specifications in regard to operation of hardware and software software licensing specifications problem-solving techniques
Underpinning Skills	 Demonstrate skills to: using store technology information systems application and use of hardware and software interpersonal communication skills to: convey knowledge of store technology system to other staff members refer problems to appropriate personnel

Page 107 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 provide assistance to staff through clear and direct communication ask questions to identify and confirm requirements share information use language and concepts appropriate to cultural differences use and interpret non-verbal communication literacy and numeracy skills in regard to processing, recording and documenting information
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to
mphodueri	information on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Occupational Standard: Tea Processing Level III			
Unit Title	Participate in a HACCP Team		
Unit Code	IND TPR 03 13 0613		
Unit Descriptor	This unit of competency covers the skills and knowledge required to participate in the development and/or review of a HACCP-based food safety program under direction.		

El	Elements		formance Criteria
1.	Prepare to develop and/or review a food	1.1	Roles and responsibilities for participating in, developing or reviewing a food safety program are identified.
	safety program	1.2	The scope of the <i>food safety program</i> is identified.
2.	Identify and/or review food safety hazards	2.1	Processes to be covered by the food safety program are <i>verified</i> and steps within each process are described.
	nazarao	2.2	Food safety hazards that are reasonably expected to occur are identified for each process.
		2.3	Identifying Scope of the HACCP based plans.
		2.4	Handling methods, processing techniques and existing support programs used in the workplace are identified.
3.	Establish and/or review methods to monitor and	3.1	Acceptable <i>methods of control</i> are established for each food safety hazard that is reasonably expected to occur.
	control food	3.2	Control methods are <i>validated</i> .
	safety hazards	3.3	Procedures for taking preventative action are established.
		3.4	Appropriate methods for monitoring that processes remain within control are established.
		3.5	Required corrective action to respond to situations where hazards are not effectively controlled is established.
		3.6	Work is conducted in accordance with workplace environmental guidelines.

Variable Range					
Food safety		May include:			
programs		• A food safety program is a written document that specifies how a business will control all food safety hazards that are reasonably expected to occur in the food business. The food safety program must provide for the systematic monitoring of the controls as well as appropriate corrective action if a hazard is found not to be under control. Records must be kept to demonstrate action in relation to, or in compliance with, the food safety program. A food safety program may be developed as a stand-alone program or may be integrated with the quality program in a workplace			
Page 109 of 135	Ministry of Education Copyright		Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	

Verification	May refers to:	
	 reviewing all aspects of the food safety program and related records to determine compliance with and adequacy of the food safety program 	
	 At a minimum, food safety programs must be verified annually 	
Food safety hazards	May include:	
	microbiological	
	chemical	
	physical hazards	
Scope of the HACCP	May include:	
based plans	 The scope of the HACCP-based plan depends on workplace requirements and may extend outside the direct area of responsibility of the team participants 	
Methods used to	May include:	
control hazards	both support programs and specific hazard control limits or requirements:	
	product recall	
	cleaning schedules	
	pest control programs	
	personal hygiene practices	
\/alidatian	calibration procedures and related operating procedures	
Validation	May include::	
	 the use of objective evidence in order to prove that materials, processes, procedures or equipment used are capable of delivering the intended result 	

Evidence Guide	
Critical Aspects of Competence	 Must confirm appropriate knowledge and skills to: identify components and parameters of a food safety program identify food safety hazards in production processes establish and validate control standards and methods for each hazard establish procedures for unpredicted hazards communicate and document hazards and control procedures complete workplace records apply safe work practices and identify Occupational Health and Safety (OHS) hazards and controls Apply food safety procedures.
Underpinning Knowledge and Attitudes	 Demonstrate knowledge of: the purpose and intent of food safety legislation purpose and responsibilities for maintaining records as required by legislation and workplace procedures roles and responsibilities for development and maintenance of the food safety program, including roles of internal and external auditors and of authorised officers

Page 110 of 135 Ministry of Educa Copyright	on Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

	 techniques for applying HACCP-based principles, including techniques for identifying hazards, assessing the likelihood of occurrence, determining acceptable methods of control, monitoring and recording requirements for each control point, identifying corrective action if controls are not met, and developing system review procedures techniques used to map operations and analyse food safety requirements, such as preparation of flow charts, hazard analysis charts and tables, and data analysis reports raw materials, ingredient and finished product composition and characteristics, and related handling and storage requirements food processing methods used in the workplace or work area and their effect on food safety sources of technical expertise on food safety requirements the role of consultation in the development, implementation and ongoing maintenance of the food safety program documentation and recording requirements to support communication and monitoring of the food safety program, including procedures for maintaining and updating relevant documents, such as operating procedures main types of food safety hazards/contamination likely to occur given the type of product and processing methods used conditions required for bacterial food poisoning to occur, such as water activity, pH, composition, time and temperature as relevant to food handled acceptable control methods for the hazards identified and required corrective action when control requirements are not met typical support programs, such as cleaning schedules, pest control, stock rotation, product traceability and personal hygiene, and how they can be used as part of a food safety program acceptable control methods for the hazards identified and required corrective action when control requirements are not met validation and verification processes and techniques and responsibilities
Underninging Skills	Demonstrate skills to:
Underpinning Skills	 identify personal roles and responsibilities for participating in
	the development or review of a food safety program
	 identify processes and steps to be covered
	 identify processes and steps to be covered identify hazards that are reasonably expected to occur and
	establish appropriate methods of control, such as
	participating in validating existing control methods and where
	there is no adequate control method in place, establishing an
	appropriate method

Page 111 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	 establish or review procedures for implementing preventative action, such as revision of materials, processes and/or food handling procedures, and where required, the revision of workplace practices and documentation, such as specifications, operating procedures and approved supplier programs describe the appropriate monitoring requirements for each food safety hazard, including the method or procedure to be followed, the frequency and timing, the person responsible, and the information to be recorded (procedures to be followed would typically be specified in the form of a standard operating procedure or work instruction) describe corrective action requirements in the event that acceptable limits or requirements of support programs are not met develop or review documentation relating to the design and maintenance of the food safety program, such as flow
	 develop or review documentation relating to the design and maintenance of the food safety program, such as flow diagrams, hazard analysis charts and tables, support
	program requirements, data analysis reports, corrective action reports and verification reports
	 develop or review documentation to communicate food safety responsibilities, such as Standard Operating Procedures (SOPs), processing parameters and recording devices (e.g. log sheets)
	 communicate food safety responsibilities within level of responsibility using techniques and presentation styles appropriate to the audience
	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	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Occupational Standard: Tea Processing Level III			
Unit Title	Set up a Production and Packaging Line for Operation		
Unit Code	IND TPR 03 14 0613		
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up multiple production or packaging processes and/or conduct multiple process changeovers for operation by others.		

EI	ements	Per	formance Criteria
1.	Prepare for line setup	1.1	Materials are confirmed and available to meet production requirements.
		1.2	Equipment and related accessories are confirmed, available and fit for use to meet production requirements.
		1.3	Tools and equipment required for line setup are made available, operational and fit for use.
		1.4	Processing parameters and settings are identified to meet production or packaging requirements.
2.	Set up the line for operation	2.1	Cleaning requirement and maintenance requirements and status are identified and confirmed.
		2.2	Equipment is inspected to confirm condition.
		2.3	Machine settings are selected or equipment adjusted as required to meet safety and production requirements.
		2.4	Processing or packaging parameters are entered as required to meet production requirements.
		2.5	Equipment performance is checked and adjusted as required.
		2.6	Pre-start checks are carried out as required by workplace <i>legislative requirements</i> .
		2.7	Line setup is completed to match production or packaging schedule and operating requirements.
		2.8	The line is ready and safe to operate and any equipment requirements are reported according to workplace reporting requirements.
		2.9	Work is conducted in accordance with workplace / Information environmental guidelines.
		2.10	Relevant personnel are notified of setup completion.

Variable	Range
Confirming cleaning requirements and status	May include: • accessing cleaning records

Page 113 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	---	------------------------

Equipment	May include:	
adjustment	limited use of hand tools within level of responsibility	
Legislative	May include:	
requirements	the Food Standards Code, including labeling, weights admeasures legislation	
	legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity	
Workplace	May include:	
information	Standard Operating Procedures (SOPs)	
	specifications	
	production schedules and instructions	
	standard forms and reports	
Policies and	May include:	
procedures	Work is carried out according to company procedures,	
	regulatory and licensing requirements, legislative	
	requirements, and industrial awards and agreements	

 conduct pre-start checks on machinery used for product determine cleaning, maintenance and operation readine determine production parameters and requirements set up line according to production requirements take corrective action in response to typical faults and inconsistencies complete workplace records and communicate line state with other personnel as required apply safe work practices and identify OHS hazards and controls safely shut down equipment Apply food safety procedures. Demonstrate knowledge of: basic operating principles of equipment and related accessories, including equipment adjustment points, rar and location/alignment requirements of sensors and related accessories of equipment used in the work area such as different types of equipment and/or components required by processing operations nature of setup/changeover requirements, such as production in materials or product on setup requirements, equipment and/or attachment changeovers related to giproducts typical equipment faults and related causes, including sand symptoms of faulty equipment and early warning signals. 	Evidence Guide		
 Underpinning Knowledge and Attitudes basic operating principles of equipment and related accessories, including equipment adjustment points, rar and location/alignment requirements of sensors and related feedback instruments, and status and purpose of guard operating capacities of equipment used in the work area such as different types of equipment and/or components required by processing operations nature of setup/changeover requirements, such as product compatibility and related cleaning requirements, impact variation in materials or product on setup requirements, equipment and/or attachment changeovers related to giproducts typical equipment faults and related causes, including sand symptoms of faulty equipment and early warning signals. 	•	 set up line according to production requirements take corrective action in response to typical faults and inconsistencies complete workplace records and communicate line status with other personnel as required apply safe work practices and identify OHS hazards and controls safely shut down equipment 	
· • • • • • • • • • • • • • • • • • • •	Knowledge and	 Apply food safety procedures. Demonstrate knowledge of: basic operating principles of equipment and related accessories, including equipment adjustment points, range and location/alignment requirements of sensors and related feedback instruments, and status and purpose of guards operating capacities of equipment used in the work area, such as different types of equipment and/or components as required by processing operations nature of setup/changeover requirements, such as product compatibility and related cleaning requirements, impact of variation in materials or product on setup requirements, equipment and/or attachment changeovers related to given 	
	Min	stry of Education Tea Processing Version 1	

Page 114 of 135	Ministry of Education	Tea Processing	Version 1
1 490 111 01 100	Copyright	Ethiopian Occupational Standard	July 2013

 related processes and personnel dependent on line setup, and communication responsibilities isolation, lock out and tag out procedures and responsibilities Occupational Health and Safety (OHS) hazards and controls procedures and responsibility for reporting equipment performance information • basic operating principles of process control, where relevant. including the relationship between control panels and systems and the physical equipment routine maintenance requirements and procedures where relevant Underpinning Skills Demonstrate skills to: access production/packing schedule and related information to identify line setup/changeover requirements, such as checking product sequencing and compatibility, confirming that the required cleaning and/or sanitation has occurred and required packaging components and consumables are available as appropriate select, fit and use personal protective clothing and/or equipment confirm supply of necessary equipment and related attachments, materials and services for production confirm supply of necessary equipment and services to carry out setup operations set and/or adjust equipment to meet production/packaging requirements, including selecting the required parameters or equipment settings, and changing processing set points as required position safety guards and cancel isolation/lockouts ready for operation · confirm that sensors and related feedback instruments are correctly positioned and operational operate equipment to confirm equipment setup and make final adjustments as required • time setup activities to meet production requirements advise affected work areas/personnel of completion of setup maintain work area to meet housekeeping standards load and/or position materials/ingredients/product and/or packaging consumables according to enterprise procedures • use the control panel/system to set and adjust equipment components according to enterprise procedures conduct routine maintenance according to enterprise procedures use oral communication skills/language competence to fulfil 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

Page 115 of 135 Ministry of Ec		Version 1 July 2013
--------------------------------	--	------------------------

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

Occupational Standard: Tea Processing Level III		
Unit Title	Monitor Implementation of Work Plan/Activities	
Unit Code	IND TPR 03 15 0613	
Unit Descriptor	This unit covers competence required to oversee and monitor the quality of work operations within an enterprise. This unit may be carried out by team leaders or supervisors.	

Elements	Performance Criteria
Monitor and improve	1.1 Efficiency and service levels are monitored on an ongoing basis.
workplace operations	1.2 Operations in the workplace support overall enterprise goals and quality assurance initiatives.
	1.3 Quality problems and issues are promptly identified and adjustments are made accordingly.
	1.4 Procedures and systems are changed in consultation with colleagues to improve efficiency and effectiveness.
	Colleagues are consulted about ways to improve efficiency and service levels.
2. Plan and	2.1 Current workload of colleagues is accurately assessed.
organise workflow	2.2 Work is scheduled in a manner which enhances efficiency and customer service quality.
	2.3 Work is delegated to appropriate people in accordance with principles of delegation.
	2.4 Workflow is assessed against agreed objectives and timelines and colleagues are assisted in prioritisation of workload.
	2.5 Input is provided to appropriate management regarding staffing needs.
Maintain workplace	3.1 Workplace records are accurately completed and submitted within required timeframes.
records	3.2 Where appropriate completion of records is delegated and monitored prior to submission.
4. Solve problems and	4.1 Workplace problems are promptly identified and considered from an operational and customer service perspective.
make decisions	4.2 Short term action is initiated to resolve the immediate problem where appropriate.
	4.3 Problems are analysed for any long term impact and potential solutions are assessed and actioned in consultation with relevant colleagues.
	4.4 Where problem is raised by a team member, they are encouraged to participate in solving the problem.
	4.5 Follow up action is taken to monitor the effectiveness of solutions in the workplace.
Page 117 of 135 Mini	stry of Education Tea Processing Version 1

Page 117 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Variables	Range
Problems	May include but not limited to:
	 difficult customer service situations
	 equipment breakdown/technical failure
	delays and time difficulties
	• competence
Workplace	May include but is not limited to:
records	staff records and regular performance reports

Evidence Guide	
Critical Aspects of Competence	 Demonstrates skills and knowledge in: ability to effectively monitor and respond to a range of common operational and service issues in the workplace understanding of the role of staff involved in workplace monitoring knowledge of quality assurance, principles of workflow planning, delegation and problem solving
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: roles and responsibilities in monitoring work operations overview of leadership and management responsibilities principles of work planning and principles of delegation typical work organization methods appropriate to the sector quality assurance principles and time management problem solving and decision making processes industrial and/or legislative issues which affect short term work organization as appropriate to industry sector
Underpinning Skills	Demonstrate skills to: monitor and improve workplace operations plan and organize workflow maintain workplace records
Resource Implications	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.

Page 118 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	---	------------------------

Occupational Standard: Tea Processing Level III		
Unit Title	Apply Quality Control	
Unit Code	IND TPR 03 16 0613	
Unit Descriptor	This unit covers the knowledge, attitudes and skills required in applying quality control in the workplace.	

Elem	nents	Performance Criteria		
Implement quality standards		1.1 Agreed quality standard and procedures are acquired and confirmed.		
SI	ianuarus	1.2 Standard procedures are introduced to organizational staff/personnel.		
		1.3 Quality standard and procedures documents are provided to employees in accordance with the organization policy.		
		1.4 Standard procedures are revised / updated when necessary.		
of	ssess quality f service elivered	2.1 Services delivered are <i>quality checked</i> against organization <i>quality standards</i> and specifications.		
G.	elivered	2.2 Service delivered are evaluated using the appropriate evaluation <i>quality parameters</i> and in accordance with organization standards.		
		2.3 Causes of any identified faults are identified and corrective actions are taken in accordance with organization policies and procedures.		
_	lecord nformation	3.1 Basic information on the quality performance is recorded in accordance with organization procedures.		
		3.2 Records of work quality are maintained according to the requirements of the organization.		
qı	tudy causes of uality eviations	4.1 Causes of deviations from final outputs or services are investigated and reported in accordance with organization procedures.		
		4.2 Suitable preventive action is recommended based on organization quality standards and identified causes of deviation from specified quality standards of final service or output.		
	complete ocumentation	5.1 Information on quality and other indicators of service performance is recorded.		
		5.2 All service processes and outcomes are recorded.		

Page 119 of 135 Ministry of Educat Copyright	on Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	---	------------------------

Variable	Range	
Quality check	May include but not limited to:	
	Check against design / specifications	
	Visual inspection and Physical inspection	
Quality standards	May include but not limited to:	
	Materials	
	Components	
	Process	
	Procedures	
Quality parameters	May include but not limited to:	
	Standard Design / Specifications	
	Material Specification	

Evidence Guide	
Critical Aspects of	Demonstrates skills and knowledge to:
Competence	 Check completed work continuously against organization standard
	Identify and isolate faulty or poor service
	Check service delivered against organization standards
	 Identify and applied corrective actions on the causes of identified faults or error
	Record basic information regarding quality performance
	 Investigate causes of deviations of services against standard
	Recommend suitable preventive actions
Underpinning	Demonstrates knowledge of:
Knowledge	Relevant quality standards, policies and procedures
	Characteristics of services
	Safety environment aspects of service processes
	Evaluation techniques and quality checking procedures
	Workplace procedures and reporting procedures
Underpinning Skills	Demonstrates skills to:
	interpret work instructions, specifications and standards
	appropriate to the required work or service
	carry out relevant performance evaluation
	maintain accurate work records
	meet work specifications and requirements
	communicate effectively within defined workplace procedures
Resource	Access is required to real or appropriately simulated situations,
Implications	including work areas, materials and equipment, and to
NA di l	information on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
Operator of	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a
Assessment	simulated work place setting.

Page 120 of 135 Ministry of Edu Copyright	tion Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
--	---	------------------------

Occupational Standard: Tea Processing Level III		
Unit Title	Lead Workplace Communication	
Unit Code	IND TPR3 17 06 0613	
Unit Descriptor	This unit covers the knowledge, attitudes and skills needed to lead in the dissemination and discussion of information and issues in the workplace.	

Elements	Performance Criteria	
1. Communicate	1.1 Appropriate <i>communication method</i> is selected.	
information about	1.2 Multiple operations involving several topics areas are communicated accordingly.	
workplace processes	1.3 Questions are used to gain extra information.	
processes	1.4 Correct sources of information are identified.	
	1.5 Information is selected and organized correctly.	
	1.6 Verbal and written reporting is undertaken when required.	
	1.7 Communication skills are maintained in all situations.	
2. Lead workplace	2.1 Response to workplace issues is sought.	
discussion	2.2 Response to workplace issues are provided immediately.	
	2.3 Constructive contributions are made to workplace discussions on such issues as production, quality and safety.	
	2.4 Goals/objectives and action plan undertaken in the workplace are communicated.	
3. Identify and	3.1 Issues and problems are identified as they arise.	
communicate issues arising in the workplace	3.2 Information regarding problems and issues are organized coherently to ensure clear and effective communication.	
the workplace	3.3 Dialogue is initiated with appropriate staff/personnel.	
	3.4 Communication problems and issues are raised as they arise.	

Variable	Range
Methods of	May include but not limited to:
communication	Non-verbal gestures
	Verbal
	Face to face
	Two-way radio
	Speaking to groups
	Using telephone
	Written
	Using Internet
	Cell phone

Page 121 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Evidence Guide		
Critical Aspects of	Demonstrates skills and knowledge to:	
Competence	Deal with a range of communication/information at one time	
	Make constructive contributions in workplace issues	
	Seek workplace issues effectively	
	Respond to workplace issues promptly	
	Present information clearly and effectively written form	
	Use appropriate sources of information	
	Ask appropriate questions	
	Provide accurate information	
Underpinning	Demonstrates knowledge of:	
Knowledge and	Organization requirements for written and electronic	
Attitudes	communication methods	
	Effective verbal communication methods	
Underpinning Skills	Demonstrates skills to:	
	Organize information	
	Understand and convey intended meaning	
	Participate in variety of workplace discussions	
	Comply with organization requirements for the use of written	
	and electronic communication methods	
Resources	Access is required to real or appropriately simulated situations,	
Implication	including work areas, materials and equipment, and to	
Mathadaat	information on workplace practices and OHS practices.	
Methods of	Competence may be assessed through: • Interview / Written Test	
Assessment		
Context of	Observation / Demonstration with Oral Questioning Competence may be appeared in the work place or in a	
	Competence may be assessed in the work place or in a	
Assessment	simulated work place setting.	

Occupational Standard: Tea Processing Level III		
Unit Title	Lead Small Teams	
Unit Code	IND TPR 03 18 0613	
Unit Descriptor	Descriptor This unit covers the skills, knowledge and attitudes required determine individual and team development needs and facilitate the development of the work group.	

Elements	Performance Criteria
Provide team leadership	1.1 Learning and development needs are systematically identified and implemented in line with organizational requirements.
	1.2Learning plan to meet individual and group training and developmental needs is collaboratively developed and implemented.
	1.3Individuals are encouraged to self-evaluate performance and identify areas for improvement.
	1.4 Feedback on performance of team members is collected from relevant sources and compared with established team learning process.
2. Foster individual and organizational growth	2.1Learning and development program goals and objectives are identified to match the specific knowledge and skills requirements of competence standards.
	2.2 Learning delivery methods are appropriate to the learning goals, the learning style of participants and availability of equipment and resources.
	2.3Workplace learning opportunities and coaching/ mentoring assistance are provided to facilitate individual and team achievement of competencies.
	2.4Resources and timelines required for learning activities are identified and approved in accordance with organizational requirements.
3. Monitor and evaluate workplace learning	3.1Feedback from individuals or teams is used to identify and implement improvements in future learning arrangements.
	3.2Outcomes and performance of individuals/teams are assessed and recorded to determine the effectiveness of development programs and the extent of additional support.
	3.3Modifications to learning plans are negotiated to improve the efficiency and effectiveness of learning.
	3.4Records and reports of competence are maintained within organizational requirement.

Page 123 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
---	--	------------------------	--

4. Develop team commitment and cooperation	4.1Open communication processes to obtain and share information is used by team.
	4.2Decisions are reached by the team in accordance with its agreed roles and responsibilities.
	4.3Mutual concern and camaraderie are developed in the team.
5. Facilitate accomplishment of organizational goals	5.1Team members actively participated in team activities and communication processes.
	5.2Teams' members developed individual and joint responsibility for their actions.
	5.3Collaborative efforts are sustained to attain organizational goals.

Variable	Range
Learning and	May include but not limited to:
development	 Coaching, mentoring and/or supervision
needs	Formal/informal learning program
	Internal/external training provision
	Work experience/exchange/opportunities
	Personal study
	Career planning/development
	Performance appraisals
	Workplace skills assessment & Recognition of prior learning
Organizational	May include but not limited to:
requirements	Quality assurance and/or procedures manuals
	Goals, objectives, plans, systems and processes
	Legal and organizational policy/guidelines and requirements
	Safety policies, procedures and programs
	Confidentiality and security requirements
	Business and performance plans
	Ethical standards
	Quality and continuous improvement processes and standards
Feedback on	May include but not limited to:
performance	Formal/informal performance appraisals
	Obtaining feedback from supervisors and colleagues
	Obtaining feedback from clients
	Personal and reflective behavior strategies
	 Routine and organizational methods for monitoring service delivery
Learning delivery	May include but not limited to:
methods	On the job coaching or mentoring
	Problem solving
	Presentation/demonstration
	Formal course participation
	Work experience and Involvement in professional networks
	Conference/seminar attendance and induction

Page 124 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Evidence Guide	
Critical Aspects of Competence	 Demonstrates skills and knowledge to: Identify and implement learning opportunities for others give and receive feedback constructively facilitate participation of individuals in the work of the team negotiate learning plans to improve the effectiveness of learning prepare learning plans to match skill needs access and designate learning opportunities
Underpinning Knowledge and Attitude	 access and designate learning opportunities Demonstrates knowledge of: coaching and mentoring principles how to work effectively with team members who have diverse work styles, aspirations, cultures and perspective how to facilitate team development and improvement methods and techniques for eliciting and interpreting feedback methods for identifying and prioritizing personal development opportunities and options career paths and competence standards in the industry
Underpinning Skills	 Demonstrates skills to: read and understand a variety of texts, prepare general information and documents according to target audience; spell with accuracy; use grammar and punctuation effective relationships and conflict management receive feedback and report, maintain effective relationships and conflict management organize required resources and equipment to meet learning needs provide support to colleagues organize information; assess information for relevance and accuracy; identify and elaborate on learning outcomes facilitation skills to conduct small group training sessions relate to people from a range of social, cultural, physical and mental backgrounds
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 exam Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the workplace or in a simulated workplace setting

Page 125 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Occupational Standard: Tea Processing Level III		
Unit Title	nit Title Improve Business Practice	
Unit Code	IND TPR 03 19 0613	
Unit Descriptor	This unit covers the skills, knowledge and attitudes required in promoting, improving and growing business operations.	

Elements	Per	formance Criteria
1. Diagnose the	1.1	Data required for diagnosis is determined and acquired.
business	1.2	Competitive advantage of the business is determined from the data.
	1.3	SWOT analysis of the data is undertaken.
2. Benchmark the	2.1	Sources of relevant benchmarking data are identified.
business	2.2	Key indicators for benchmarking are selected in consultation with key stakeholders.
	2.3	Like indicators of own practice are compared with benchmark indicators.
	2.4	Areas for improvement are identified.
3. Develop plans	3.1	A consolidated list of required improvements is developed.
to improve business performance	3.2	Cost-benefit ratios for required improvements are determined.
periormanoe	3.3	Work flow changes resulting from proposed improvements are determined.
	3.4	Proposed improvements are ranked according to agreed criteria.
	3.5	An action plan is developed and agreed to implement the top ranked improvements.
	3.6	Organizational structures are checked to ensure they are suitable.
4. Develop	4.1	The practice vision statement is reviewed.
marketing and promotional	4.2	Practice objectives are developed/ reviewed.
plans	4.3	Target markets are identified/ refined.
	4.4	Market research data is obtained.
	4.5	Competitor analysis is obtained.
	4.6	Market position is developed/ reviewed.
	4.7	Practice brand is developed.
	4.8	Benefits of practice/practice products/services are identified.
	4.9	Promotion tools are selected/ developed.

Page 126 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013	
---	---	------------------------	--

5. Develop	5.1	Plans are developed to increase yield per existing client.
business growth plans	5.2	Plans are developed to add new clients.
growth plans	5.3	Proposed plans are ranked according to agreed criteria.
	5.4	An action plan is developed and agreed to implement the top ranked plans.
	5.5	Practice work practices are reviewed to ensure they support growth plans.
6. Implement and monitor plans	6.1	Implementation plan is developed in consultation with all relevant stakeholders.
	6.2	Indicators of success of the plan are agreed.
	6.3	Implementation is monitored against agreed indicators.
	6.4	Implementation is adjusted as required.

Variable	Range		
Data required	May include be	May include but not limited to:	
includes:	 organizatio 	n capability	
	 appropriate 	e business structure	
	 level of clie 	ent service which can be provided	
	 internal pol 	icies, procedures and practices	
	 staff levels, 	, capabilities and structure	
	 market, ma 	arket definition	
	 market cha 	inges/market segmentation	
	 market con 	solidation/fragmentation	
	revenue	· ·	
	 level of con 	nmercial activity	
	 expected re 	evenue levels, short and long term	
	revenue green	owth rate	
	break even	data	
	 pricing poli 	pricing policy	
		 revenue assumptions 	
	 business er 	business environment	
	economic of	economic conditions	
	 social factor 	social factors	
	 demograph 	demographic factors	
	technologic	technological impacts	
	 political/leg 	political/legislative/regulative impacts	
	• competitors	competitors, competitor pricing and response to pricing	
	_	competitor marketing/branding	
	• competitor	•	
Competitive		May include but not limited to:	
advantage	1	services/products	
	• fees		
	location		
	timeframe		
D 407 ():==	Ministry of Education	Tea Processing	Version 1
Page 127 of 135	Copyright	Ethiopian Occupational Standard	July 2013

SWOT analysis	May include but not limited to:
SWOT allalysis	
	internal strengths such as staff capability, recognized
	• quality
	internal weaknesses such as poor morale,
	under-capitalization, poor technology
	external opportunities such as changing market and
	economic conditions
	external threats such as industry fee structures, strategic
	alliances, competitor marketing
Key indicators	May include but not limited to:
	salary cost and staffing
	personnel productivity (particularly of principals)
	profitability
	fee structure
	client base
	size staff/principal
	overhead/overhead control
Organizational	May include but not limited to:
structures	 Legal structure (partnership, Limited Liability Company, etc.)
	organizational structure/hierarchy
	reward schemes
Objectives should	May include but not limited to:
be 'SMART'	S: Specific
	M: Measurable
	A: Achievable
	R: Realistic
	T: Time defined
Market research	May include but not limited to:
data	data about existing clients
	data about possible new clients
	data from internal sources
	data from external sources such as:
	trade associations/journals
	Yellow Pages small business surveys
	➢ libraries
	➤ Internet
	Chamber of Commerce
	client surveys
	industry reports and secondary market research
	primary market research such as:
	telephone surveys, personal interviews and mail surveys
Competitor	May include but not limited to:
analysis	competitor offerings
	 competitor promotion strategies and activities
	competitor profile in the market place
Market position	May include but not limited to:
	product
	

Page 128 of 135 Ministry of Education Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	--	------------------------

	 the good or service provided product mix the core product - what is bought the tangible product - what is perceived the augmented product - total package of consumer features/benefits product differentiation from competitive products new/changed products
	 Price and pricing strategies (cost plus, supply/demand, ability to pay, etc.) Pricing objectives (profit, market penetration, etc.)
	cost componentsmarket positiondistribution strategies
	marketing channelspromotion
	 promotional strategies target audience
Drootice breed	communication and promotion budget May include but not limited to:
Practice brand	May include but not limited to:
	practice image practice logg/letter head/signage
	practice logo/letter head/signage phone answering protocol
	phone answering protocol facility docor
	• facility decor
	slogans templates for communication/invoicing
	templates for communication/invoicing style guide
	style guidewriting style
	 Writing style AIDA (Attention, Interest, Desire and Action)
Benefits	May include but not limited to:
Dononto	features and benefits as perceived by the client
Promotion tools	May include but not limited to:
	networking and referrals
	• seminars
	advertising
	press releases
	publicity and sponsorship
	• brochures
	newsletters (print and/or electronic)
	websites
	direct mail and telemarketing/cold calling
Yield per existing	May include but not limited to:
client	raising charge out rates/fees
	packaging fees
	 reduce discounts and sell more services to existing clients

Page 129 of 135 Min	inistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Evidence Guide	
Critical Aspects of	Demonstrates skills and knowledge in:
Competence	 ability to identify the key indicators of business performance
	ability to identify the key market data for the business
	knowledge of a wide range of available information sources
	ability to acquire information not readily available within a
	business
	ability to analyze data and determine areas of improvement
	 ability to negotiate required improvements to ensure
	implementation
	ability to evaluate systems against practice requirements
	and form recommendations and/or make recommendations
	 ability to assess the accuracy and relevance of information
Underpinning	Demonstrates knowledge of:
	G
Knowledge and Attitudes	data analysis
Attitudes	communication skills
	computer skills to manipulate data and present information
	negotiation skills
	problem solving
	planning skills
	marketing principles
	ability to acquire and interpret relevant data
	current product and marketing mix
	use of market intelligence
	 development and implementation strategies of promotion and
	growth plans
Underpinning	Demonstrates skill in:
Skills	data analysis and manipulation
	 ability to acquire and interpret required data, current practice
	systems and structures and sources of relevant benchmarking
	data
	 applying methods of selecting relevant key benchmarking
	indicators
	communication skills
	 working and consulting with others when developing plans for
	the business
	 planning skills, negotiation skills and problem solving
	 using computers to manipulate, present and distribute
	information
Resources	Access is required to real or appropriately simulated situations,
Implication	including work areas, materials and equipment, and to information
	on workplace practices and OHS practices.
Methods of	Competence may be assessed through:
Assessment	Interview / Written Test
	Observation / Demonstration with Oral Questioning
Context of	Competence may be assessed in the work place or in a simulated
Assessment	work place setting.
-	

Page 130 of 135 Ministry of Educ Copyright	Tea Processing Ethiopian Occupational Standard	Version 1 July 2013
---	--	------------------------

Occupational Standard: Tea Processing Level III	
Unit Title	Prevent and Eliminate MUDA
Unit Code	IND TPR 03 20 0613
Unit Descriptor	This unit of competence covers the knowledge, skills and attitude required by a worker to prevent and eliminate MUDA/wastes in his/her their workplace. It covers responsibility for the day-to-day operation of the work and ensures Kaizen elements are continuously improved and institutionalized.

Elements	Performance Criteria
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 Appropriate material is selected for work.
	1.5 Safety equipment and tools are identified and checked for safe and effective operation.
2. Identify MUDA.	2.1 Plan of MUDA identification is prepared and implemented.
	2.2 Causes and effects of MUDA are discussed.
	2.3 Tools and techniques are used to draw and analyze current situation of the work place.
	2.4 Wastes/MUDA are identified and measured based on <i>relevant procedures</i> .
	2.5 Identified and measured wastes are reported to relevant personnel.
3. Eliminate wastes/MUDA.	3. 1. Plan of MUDA elimination is prepared and implemented.
wastes/MODA.	 Necessary attitude and the ten basic principles for improvement are adopted to eliminate waste/MUDA.
	3. 3. Tools and techniques are used to eliminate wastes/MUDA based on the procedures and OHS.
	3. 4. Wastes/MUDA are reduced and eliminated in accordance with OHS and organizational requirements.
	3. 5. Improvements gained by elimination of waste/MUDA are reported to relevant bodies.
4. Prevent occurrence of	4.1 Plan of MUDA prevention is prepared and implemented.
wastes/MUDA.	4.2 Standards required for machines, operations, defining normal and abnormal conditions, clerical procedures and procurement are discussed and prepared.

Page 131 of 135 = 2	f Education Tea Processir yright Ethiopian Occupationa	
-----------------------	---	--

4.3	Occurrences of wastes/MUDA are prevented by using visual and auditory control methods.
4.4	Waste-free workplace is created using 5W and 1Hsheet.
4.5	The completion of required operation is done in accordance with standard procedures and practices.
4.6	The updating of standard procedures and practices is facilitated.
4.7	The capability of the work team that aligns with the requirements of the procedure is ensured.

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. Paragraph protective equipment is to include that prescribed.
	 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	May include but not limited to:
tools	dust masks / goggles
	• glove
	working cloth
	first aid
	safety shoes
Tools and techniques	May include but not limited to:
	Plant Layout
	Process flow
	Other Analysis tools
	Do time study by work element
	Measure Travel distance Take a photo of warderlands
	Take a photo of workplace Massure Total stops
	Measure Total steps Make list of items/products, who produces them and who
	 Make list of items/products, who produces them and who uses them & those in warehouses, storages etc.
	Focal points to Check and find out existing problems

Page 132 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	. 50
	• 5S
	Layout improvement Projectors in a
	Brainstorming Ander
	• Andon
	• U-line
	• In-lining
	Unification
	Multi-process handling & Multi-skilled operators
	A.B. control (Two point control)
	Cell production line
	TPM (Total Productive Maintenance)
Relevant procedures	May include but not limited to:
	Make waste visible
	Be conscious of the waste
	Be accountable for the waste.
	Measure the waste.
The ten basic	May include but not limited to:
principles for	 Throw out all of your fixed ideas about how to do things.
improvement	 Think of how the new method will work- not how it won.
	 Don't accept excuses. Totally deny the status quo.
	 Don't seek perfection. A 5o percent implementation rate is
	fine as long as it's done on the spot.
	 Correct mistakes the moment they are found.
	 Don't spend a lot of money on improvements.
	 Problems give you a chance to use your brain.
	 Ask "why?" At least five times until you find the ultimate
	cause.
	 Ten people's ideas are better than one person's.
	Improvement knows no limits.
Visual and auditory	May include but not limited to:
control methods	Red Tagging
	Sign boards
	Outlining
	Andons
	Kanban, etc.
5W and 1H	May include but not limited to:
	Who
	What
	Where
	When
	Why and How

Evidence Guide				
Critical Aspects of	Demonstra	Demonstrates skills and knowledge to:		
Competence	• discus	discuss why wastes occur in the workplace		
discuss causes and effects of wastes/MUDA in the workplace			DA in the	
Mini	otry of Education	Too Dropping	Varaian 1	

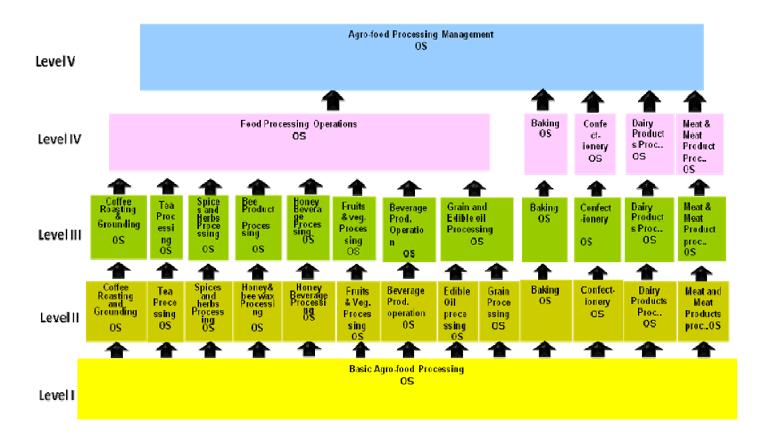
Page 133 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

	analyze the current situation of the workplace by using
	appropriate tools and techniques
	 identify, measure, eliminate and prevent occurrence of wastes by using appropriate tools and techniques
	 use 5W and 1H sheet to prevent
Underpinning	Demonstrates knowledge of:
Knowledge and	Targets of customers and manufacturer/service provider
Attitudes	Traditional and kaizen thinking of price setting
, minusos	Kaizen thinking in relation to targets of
	manufacturer/service provider and customer
	value
	The three categories of operations
	• the 3"MU"
	waste/MUDA
	wastes occur in the workplace
	The 7 types of MUDA
	The Benefits of identifying and eliminating waste
	Causes and effects of 7 MUDA
	Procedures to identify MUDA
	Necessary attitude and the ten basic principles for
	improvement
	Procedures to eliminate MUDA
	Prevention of wastes
	Methods of waste prevention
	Definition and purpose of standardization
	Standards required for machines, operations, defining
	normal and abnormal conditions, clerical procedures and
	procurement
	Methods of visual and auditory control TRACE TRACE
	TPM concept and its pillars. Palacent Concept and its pillars.
	Relevant Occupational Health and Safety (OHS) and
	environment requirements
	Plan and reportMethod of communication
Underpinning Skills	Demonstrates skills to:
Onderprining Skills	draw & analyze current situation of the work place
	 use measurement apparatus (stop watch, tape, etc.)
	calculate volume and area
	use and follow checklists to identify, measure and
	eliminate wastes/MUDA
	identify and measure wastes/MUDA in accordance with
	OHS and procedures
	use tools and techniques to eliminate wastes/MUDA in
	accordance with OHS procedure
	apply 5W and 1H sheet
	update and use standard procedures for completion of
	required operation

Page 134 of 135	Ministry of Education	Tea Processing	Version 1
1 age 154 of 155	Copyright	Ethiopian Occupational Standard	July 2013

	 work with others read and interpret documents observe situations solve problems communicate gather evidence by using different means 	
	report 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	Competence may be assessed through:	
Assessment	Interview / Written Test	
	Observation / Demonstration with Oral Questioning	
Context of	Competence may be assessed in the work place or in a	
Assessment	simulated work place setting.	

Sector: Industry
Sub- sector: Agro-food Processing



Page 136 of 135	Ministry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013

Acknowledgement

We wish to extend thanks and appreciation to the many representatives of business, industry, academe and government agencies who donated their time and expertise to the development of this occupational standard.

We would like also to express our appreciation to the Staff and Experts of Industry Ministry, Federal TVET Agency and Ministry of Education (MoE) who made the development of this occupational standard possible.

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

COMMENT TEMPLATE

The Federal TVET Agency values your feedback of the document.
If you would like someone to personally contact you, please provide the following
information:
Name:
Region:
Phone number:
Email:
Contact preference: Phone E-mail
Please, leave a comment.

Thank you for your time and consideration to complete this. For additional comments, please contact us on:

- Phone# +251911207386/+251911641248/+251923787992 and
- E-mail: bizunehdebebe@yahoo.com/ Abebaw_maemer@yahoo.com/won_get@yahoo.com.

Page 137 of 135	linistry of Education	Tea Processing	Version 1
	Copyright	Ethiopian Occupational Standard	July 2013