



Competency Standard (CS)

Packaging Machine Operation

Level-2

Agro Food Processing Sector

Competency Standard Code: CS-AGP-PMO-L2-EN-V1



**National Skills Development Authority
Prime Minister's Office
Government of the People's Republic of Bangladesh**

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This Competency Standard for **Packaging Machine Operation** is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

Introduction

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skill ecosystem and delivery mechanism through a combination of Well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. " **Packaging Machine Operation**" is selected as one of the priority occupations of **Agro Food Processing** Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils , employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification in the Bangladesh National Qualification Framework (BNQF) and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding elements.

Overview

A **competency standard** is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of parts for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of occupation specific experts, academicians, representatives from NSDA, SEIP and ISC to identify the competencies required of an occupation in **Agro Food Processing Sector**.

Competency standards describe the knowledge, skills and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasising what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guides

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key parts of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

**Competency Standards for National Skill Certificate – 2 in
Packaging Machine Operation, Agro Food Processing Sector**

Level Descriptors of Skills Sector, BNQF Level 1-6

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

List of Abbreviations

NSDA	- National Skills Development Authority
CS	- Competency Standard
SCVC	- Standard and Curriculum Validation Committee
ISC	- Industry Skills Council
CBLM	- Competency Based Learning Material
UoC	- Unit of Competency
PPE	- Personal Protective Equipment
OSH	- Occupational Safety and Health
CBC	- Competency Based Curriculum
AGP	- Agro Food Processing
PMO	- Packaging Machine Operation
CNC	- Computer and Numerical Control
BNQF	- Bangladesh National Qualification Framework
STP	- Skills Training Provider
SOP	- Standard Operating Procedure
UoC	- Unit of Competency
4 IR	- 4th Industrial Revolution

Approved by
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List of members in the validation workshop:	39

**Competency Standards for National Skill Certificate – 2 in
Packaging Machine Operation
Course Structure**

SL	Unit Code and Title		UoC Level	Nominal Hours
Generic Units of Competencies				45
1.	GU-02-L1-V1	Apply Occupational Health and Safety (OHS) Procedure in the Workplace	1	15
2.	GU-04-L1-V1	Work in the team environment	1	15
3.	GU-05-L2-V1	Carryout Workplace Interaction	2	15
Sector Specific Units of Competencies				50
4.	SU-AFP-01-L1-V1	Follow quality and food safety programs	1	30
5.	SU-AFP -03-L1-V1	Work in the food industry	2	20
Occupation Specific Units of Competencies				175
6.	OU-AFP-PMO-01-L2-V1	Interpret Knowledge on Packaging Process, Materials and Equipment	2	25
7.	OU-AFP-PMO-02-L2-V1	Operate Form, Fill and Seal/Capping Machine	2	50
8.	OU-AFP-PMO-03-L2-V1	Operate Blending, Sieving and Packaging Machine	2	50
9.	OU-AFP-PMO-04-L2-V1	Operate Flow Wrapping Machine	2	50
Total Nominal Hours				270

Units & Elements at a Glance:

Generic Unit of Competency - 45 Hrs.

Code	Unit of competency	Elements of competency	Duration (hours)
GU-02-L1-V1	Apply Occupational Health and Safety (OHS) Procedure in The Workplace	<ol style="list-style-type: none"> 1. Identify OSH policies and procedures 2. Follow OSH procedure 3. Report hazards and risks. 4. Respond to emergencies 5. Maintain personal well-being 	15
GU-04-L1-V1	Work in the team environment	<ol style="list-style-type: none"> 1. Define team role and scope 2. Identify individual role and responsibility 3. Participate in team discussions 4. Work as a team member 	15
GU-05-L2-V1	Carryout Workplace Interaction	<ol style="list-style-type: none"> 1. Interpret workplace communication and etiquette 2. Interpret Workplace Documents 3. Participate in workplace meetings and discussions 4. Practice professional ethics at workplace 	15
Total Hours			45

Sector Specific Units of Competencies (50 Hours)

Code	Unit of competency	Elements of competency	Duration (hours)
SU-AFP-01-L1-V1	Follow Quality and Food Safety Programs	<ol style="list-style-type: none"> 1. Observe OSH. 2. Practice personal hygiene and good grooming standards. 3. Follow safe food handling and sanitation practices. 4. Monitor quality of work outcome. 5. Identify and act on quality deficits and/or food safety hazards. 	30
SU-AFP-03-L1-V1	Work in the Food Industry	<ol style="list-style-type: none"> 1. Identify job roles and responsibilities in the food industry 2. Identify and observe OSH in the food industry 3. Plan work activities 4. Work with others 	20
Total hours			50

Occupation Specific Unit of Competencies – 175 Hours

Code	Unit of Competency	Elements of Competency	Duration (hours)
OU-AFP_PMO-01-L2-V1	Interpret knowledge on Packaging Process, Materials and Equipment	<ol style="list-style-type: none"> 1. Interpret Packaging Process 2. Identify packaging materials according to food products 3. Identify packaging equipment 	25
OU-AFP_PMO-02-L2-V1	Operate Form, Fill and Seal/Capping Machines	<ol style="list-style-type: none"> 1. Prepare for packaging 2. Perform form, fill and seal/capping operation 3. Clean Machine and Workplace 	50
OU-AFP_PMO-03-L2-V1	Operate Blending, Sieving and Packing Machine	<ol style="list-style-type: none"> 1. Prepare for packaging 2. Perform blending, sieving and packaging operation 3. Clean Machine and Workplace 	50
OU-AFP_PMO-04-L2-V1	Operate Flow Wrapping Machine	<ol style="list-style-type: none"> 1. Prepare for packaging 2. Perform wrapping operation 3. Clean Machine and Workplace 	50
Total hours			175

Generic Unit of Competenceis

Unit Code and Title	GU-02-L1-V1: Apply Occupational Health and Safety (OHS) Procedure in the Workplace
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to apply occupational health and safety (OHS) procedure in the workplace.</p> <p>It specifically includes identifying OHS policies and procedures, following OHS procedure, reporting hazards and risks, responding to emergencies, and maintaining personal well-being.</p>
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify OSH policies and procedures	1.1. <u>OHS policies</u> and <u>safe operating procedures</u> are accessed and stated 1.2. <u>Safety signs and symbols</u> are identified and followed 1.3. Emergency response, evacuation procedures and other contingency measures are determined according to workplace requirements
2. Follow OSH procedure	2.1 <u>Personal protective equipment (PPE)</u> is selected and collected as required 2.2 Personal protective equipment (PPE) is correctly used in accordance with organization OHS procedures and practices 2.3 A clear and tidy workplace is maintained as per workplace standard 2.4 PPE is maintained to keep them operational and compliant with OHS regulations
3. Report hazards and risks.	3.1 <u>Hazards</u> and risks are identified, assessed and controlled 3.2 Incidents arising from hazards and risks are reported to designated authority
4. Respond to emergencies	4.1 Alarms and warning devices are responded 4.2 Workplace <u>emergency procedures</u> are followed 4.3 <u>Contingency measures</u> during workplace accidents, fire and other emergencies are recognized and followed in accordance with organization procedures 4.4 First aid procedures is applied during emergency situations
5. Maintain personal well-being	5.1 OHS policies and procedures are adhered to 5.2 OHS awareness programs are participated in as per workplace guidelines and procedures 5.3 Corrective actions are implemented to correct unsafe condition in the workplace 5.4 <u>“Fit to work” records</u> are updated and maintained according to workplace requirements

Range of Variables	
Variables	Range (may include but not limited to):
1. OHS policies	1.1. Bangladesh standards for OHS 1.2. Fire Safety Rules and Regulations 1.3. Code of Practice 1.4. Industry Guidelines
2. Safe operating procedures	2.1 Orientation on emergency exits, fire extinguishers, fire escape, etc. 2.2 Emergency procedures 2.3 First Aid procedures 2.4 Tagging procedures 2.5 Use of PPE 2.6 Safety procedures for hazardous substances
3. Safety signs and symbols	3.1 Direction signs (exit, emergency exit, etc.) 3.2 First aid signs 3.3 Danger Tags 3.4 Hazard signs 3.5 Safety tags 3.6 Warning signs
4. Personal Protective Equipment (PPE)	4.1 Gas Mask 4.2 Gloves 4.3 Safety boots 4.4 Face mask 4.5 Overalls 4.6 Goggles and safety glasses 4.7 Sun block 4.8 Chemical/Gas detectors
5. Hazards	5.1 Chemical hazards 5.2 Biological hazards 5.3 Physical Hazards 5.4 Mechanical and Electrical Hazard 5.5 Mental hazard 5.6 Ergonomic hazard
6. Emergency Procedures	6.1 Fire fighting 6.2 Earthquake 6.3 Medical and first aid 6.4 Evacuation
7. Contingency measures	7.1 Evacuation 7.2 Isolation 7.3 Decontamination
8. “Fit to Work” records	8.1 Medical Certificate every year 8.2 Accident reports, if any

	8.3 Eye vision certificate
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: <ul style="list-style-type: none"> 1.1 stated OHS policies and safe operating procedures 1.2 followed safety signs and symbols 1.3 used personal protective equipment (PPE) 1.4 maintained workplace clear and tidy 1.5 assessed and Controlled hazards 1.6 followed emergency procedures 1.7 followed contingency measures 1.8 implemented corrective actions
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Define OHS 2.2 OHS Workplace Policies and Procedures 2.3 Work Safety Procedures 2.4 Emergency Procedures 2.5 Hazard control procedure 2.6 Different types of Hazards 2.7 PPE and there uses 2.8 Personal Hygiene Practices 2.9 OHS Awareness
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Accessing OHS policies 3.2 Handling of PPE 3.3 Handling cleaning tools and equipment 3.4 Writing report 3.5 Responding to emergency procedures
4. Required attitude	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1 Workplace 5.2 Equipment and outfits appropriate in applying safety measures 5.3 Tools, materials and documentation required 5.4 OHS Policies and Procedures

6. Methods of assessment	<p>Competency should be assessed by:</p> <p>6.1 Written test</p> <p>6.2 Demonstration</p> <p>6.3 Oral questioning</p> <p>6.4 Portfolio</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	GU-04-L1-V1: Work in the Team Environment
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes (KSA) required in working in a team environment.</p> <p>It includes defining team role and scope, identifying individual role and responsibility. Participating in team discussions and working as a team member.</p>
Nominal Hours	15 Hours
Elements of Competency	<p>Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables</p>
1. Define team role and scope	1.1. Role and objectives of the team are defined 1.2. Team structure, responsibilities and reporting relations are identified from team discussions and other external sources
2. Identify individual role and responsibility	2.1 Individual roles and responsibilities of <u>team members</u> are identified 2.2 Reporting relationships among team members are defined and clarified 2.3 Reporting relationships external to the team are defined and clarified
3. Participate in team discussions	3.1 Ideas related to team plans are contributed 3.2 Recommendations for improving team work are put forward
4. Work as a team member	4.1. Effective forms of communication are used to interact with team members 4.2. Communication channels are followed 4.3. OHS practices are followed
Range of Variables	
Variables	Range (may include but not limited to):
1. Sources of information	1.1 Standard Operating Procedures 1.2 Job Description 1.3 Operations Manual 1.4 Organizational Structure
2. Team Members	2.1 Coach/mentor 2.2 Supervisor/Manager 2.3 Peers/Colleagues 2.4 Employee representative
3. Workplace context	3.1 National Laws and Statutes 3.2 Standard Operating Procedures 3.3 Workplace Rules and Regulations
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	

1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <p>1.1 demonstrated knowledge in working in a team environment.</p> <p>1.2 satisfied the requirements mentioned in the Performance Criteria and Range of Variables</p>
2. Underpinning knowledge	<p>2.1 Team Structure, Role and Responsibility</p> <p>2.2 Individual Members' Roles and Responsibilities</p> <p>2.3 Communication Flow and Reporting Structures</p> <p>2.4 Team Planning</p> <p>2.5 Interpersonal Communication Skills</p> <p>2.6 Team Meeting Procedures</p> <p>2.7 OHS Practices</p>
3. Underpinning skills	<p>3.1 Identifying the role and responsibility of the team</p> <p>3.2 Identifying roles and responsibilities of individual members</p> <p>3.3 Participating in team discussions</p> <p>3.4 Working as a team member</p>
4. Underpinning Attitudes	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Environmental concerns</p> <p>4.3 Eagerness to learn</p> <p>4.4 Tidiness and timeliness</p> <p>4.5 Respect for rights of peers and seniors in workplace</p> <p>4.6 Communication with peers and seniors in Workplace</p>
5. Resource implications	<p>5.1 Pens</p> <p>5.2 Telephone</p> <p>5.3 Computer</p> <p>5.4 Writing materials</p> <p>5.5 Online communication</p>
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <p>6.1. Demonstration</p> <p>6.2. Oral questioning</p> <p>6.3. Written test</p> <p>6.4. Portfolio</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment center</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>

Accreditation Requirements

Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NSQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	GU-05-L2-V1: Carryout Workplace Interaction
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to carry out workplace interaction.</p> <p>It specifically includes interpreting workplace communication and etiquette; reading and understand workplace documents; participating in workplace meetings and discussions; and practicing professional ethics at workplace.</p>
Nominal Hours	15 Hours
Elements of Competency	<p>Performance Criteria</p> <p><u>Bold & Underlined</u> terms are elaborated in the Range of Variables Training Components</p>
1. Interpret workplace communication and etiquette	<p>1.1 Workplace code of conducts are interpreted as per organizational guidelines</p> <p>1.2 Appropriate lines of communication are maintained with supervisors and colleagues</p> <p>1.3 Workplace interactions are conducted in a <u>courteous manner</u> to gather and convey information</p> <p>1.4 Questions about routine <u>workplace procedures and matters</u> are asked and responded as required</p>
2. Interpret Workplace Documents	<p>2.1 Workplace documents are interpreted as per standard.</p> <p>2.2 Assistance is taken to aid comprehension when required from peers / supervisors</p> <p>2.3 Visual information / symbols / signage's are understood and followed</p> <p>2.4 Specific and relevant information are accessed from <u>appropriate sources</u></p> <p>2.5 Appropriate medium is used to transfer information and ideas</p>
3. Participate in workplace meetings and discussions	<p>3.1 Team meetings are attended on time and followed meeting procedures and etiquette</p> <p>3.2 Own opinions are expressed and listened to those of others without interruption</p> <p>3.3 Inputs are provided consistent with the meeting purpose and interpreted and implemented meeting outcomes</p>
4. Practice professional ethics at workplace	<p>4.1 Responsibilities as a team member are demonstrated and kept promises and commitments made to others</p> <p>4.2 Tasks are performed in accordance with workplace procedures</p> <p>4.3 Confidentiality is respected and maintained</p> <p>4.4 Situations and actions considered inappropriate or which present a conflict of interest are avoided</p>

Range of Variables	
Variable	Range (may include but not limited to):
1. Courteous Manner	1.1 Effective questioning 1.2 Active listening 1.3 Speaking skills
2. Workplace Procedures and Matters	2.1 Notes 2.2 Agenda 2.3 Simple reports such as progress and incident reports 2.4 Job sheets 2.5 Operational manuals 2.6 Brochures and promotional material 2.7 Visual and graphic materials 2.8 Standards 2.9 OSH information 2.10 Signs
3. Appropriate Sources	3.1 HR Department 3.2 Managers 3.3 Supervisors
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency	
1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 followed workplace code of conducts is as per organizational guidelines 1.2 maintained workplace documents as per standard 1.3 followed workplace instructions and symbols 1.4 followed and implemented meeting outcomes
2. Underpinning Knowledge	2.1 Workplace communication and etiquette 2.2 Workplace documents, signs and symbols 2.3 meeting procedure and etiquette
3. Underpinning Skills	3.1 Interpreting performance of workplace communication and etiquette 3.2 Interpreting workplace instructions and symbol 3.3 Interpreting workplace code of conducts is as per organizational guidelines 3.4 Interpreting workplace documents as per standard 3.5 Interpreting and implementing meeting outcomes

4. Underpinning Attitudes	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace
5. Resource Implications	The following resources must be provided: 5.1 Relevant tools, Equipment, software and facilities needed to perform the activities. 5.2 Required learning materials.
6. Methods of Assessment	Methods of assessment may include but not limited to: 6.1 Written Test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in a NSDA accredited assessment centre 7.2 Assessment should be done by an NSDA certified/nominated assessor
Accreditation Requirements NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NSQF qualification must accredit training Providers. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Sector Specific Unit of Competencies

Unit Code and Title	SU-AFP-02-L1-V1: Follow Quality and Food Safety Programs
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to follow food quality and safety programs in the workplace.</p> <p>It includes the tasks of observing OSH practices, practicing personal hygiene and good grooming standards, following safe food handling and sanitation practices, monitoring quality of work outcome, identifying and acting on quality deficits and/or food safety hazards, maintaining cleanliness workplace and storing tools and equipment</p>
Nominal Hours	30 hours
Elements of Competency	<p>Performance Criteria</p> <p><u>Bold and Underlined</u> terms are elaborated in the Range of Variable</p>
1. Observe OSH practices	<p>1.1 Housekeeping standards are maintained in the workplace following OSH requirements.</p> <p>1.2 <u>Personal hygiene</u> is maintained and <u>PPE</u> worn as per OSH requirements.</p> <p>1.3 Equipment is cleaned for production and hygiene requirements.</p>
2. Practice personal hygiene and good grooming standards	<p>2.1. Personal hygiene and good grooming is practiced in line with workplace health and safety requirements.</p> <p>2.2. Health conditions and/or illness are reported as required by the food safety program.</p> <p>2.3. Clothing and footwear are worn appropriate for the food handling task and meets the requirements of the food safety program.</p> <p>2.4. Movement around the workplace complied with the food safety program.</p>
3. Follow safe food handling and sanitation practices	<p>3.1. <u>Food handling requirements</u> are identified.</p> <p>3.2. Safe food handling practices are followed in line with workplace sanitation regulations and the food safety code.</p> <p>3.3. The workplace is maintained in a clean and tidy order to meet workplace standards.</p>
4. Monitor quality of work outcome	<p>4.1 <u>Quality requirements</u> are identified as per product</p> <p>4.2 Inputs are inspected to confirm capability to meet quality requirements.</p> <p>4.3 Work is conducted and monitored to produce required outcomes.</p>
5. Identify and act on quality deficits and/or food safety hazards	<p>5.1 <u>Processes, practices or conditions</u> that are not consistent with quality standards or food safety program are identified.</p> <p>5.2 Quality variations and/or <u>food safety</u> hazards are rectified or removed as per workplace requirement</p> <p>5.3 Quality variations and/or food safety outside the scope of</p>

	individual responsibility are reported to appropriate personnel
6. Maintain cleanliness workplace and store tools and equipment	6.1 Work area, materials, equipment and product are routinely checked to ensure compliance with quality and/or food safety requirements. 6.2 Workplace is cleaned as per requirement 6.3 Equipment are cleaned and stored as per workplace procedure 6.4 5S housekeeping is followed as per workplace standard
Range of Variables	
Variable	Range (May include but not limited to)
1. Personal hygiene	1.1 Take Regular shower. 1.2 Wash your hands frequently. 1.3 Maintain oral hygiene practices. 1.4 Trim your nails and wash your hairs. 1.5 Clean your nose and ears. 1.6 Wear fresh and warm clothes. 1.7 Food hygiene is important too 1.8 Use sanitizer where necessary
2. PPE (Personal Protective Equipment)	2.1 Apron 2.2 Chef Jacket 2.3 Hand Gloves 2.4 Hair net 2.5 Hair cap 2.6 Face mask 2.7 Safety shoe 2.8 Shoe cover 2.9 Ear plug 2.10 Beard net
3. Food handled and stored	3.1 Raw materials 3.2 Ingredients 3.3 Consumables 3.4 Part-processed product 3.5 Finished product 3.6 Cleaning materials
4. Processes, practices or conditions	4.1 Methods of receiving and storing food 4.2 Food preparation 4.3 Cooking 4.4 Holding 4.5 Cooling 4.6 Chilling and reheating 4.7 Packaging 4.8 Disposal

5. Quality requirement	5.1 Texture 5.2 Taste 5.3 Color 5.4 Flavor 5.5 Appearance 5.6 Thickness 5.7 Weight 5.8 Moisture 5.9 Baking time 5.10 Temperature
6. Food safety	6.1 Failure to check delivery temperatures of potentially hazardous chilled food; 6.2 Failure to place temperature-sensitive food in temperature-controlled storage conditions promptly 6.3 Failure to wash hands when required 6.4 Use of cloths for unsuitable purposes
<p>Food Safety Program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the Food Safety Standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures.</p> <p>Food safety information may be provided in a food safety program and/or in Standard Operating Procedures (SOPs), specifications, log sheets and written or verbal instruction. Appropriate clothing and footwear depends on work requirements. It should be designed to ensure that the body and clothing itself does not contaminate food or surfaces likely to come into contact with food.</p> <p>A food safety hazard is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect. Examples are bacteria, chemical additives, plastic and glass.</p> <p>Responsibility for monitoring food safety, identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace.</p> <p>Responsibility for monitoring quality relates to immediate work responsibilities and may require visual inspections and checks</p> <p>Monitoring typically involves visual inspection or checks at control points. Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) control points.</p> <p>Responding to out-of-specification or unacceptable outcomes at this level typically involves exercising judgment within clearly defined boundaries and reporting/referring to others.</p> <p>Minimum personal hygiene requirements are specified by the workplace food safety program and at a minimum must at least meet legal requirements as set out in the Food Safety Standard.</p>	

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Maintained Housekeeping standards in the workplace following OSH requirements. 1.2 Maintained Personal hygiene and worn PPE as per OSH requirements. 1.3 Cleaned Equipment and work place for production and hygiene requirements. 1.4 Rectified or removed Quality variations and/or food safety hazards within the level of responsibility 1.5 Monitored quality of work outcome 1.6 Identified and acted on quality deficits and/or food safety hazards
2. Underpinning knowledge	2.1 Personal hygiene 2.2 Rules and regulations to produce quality and safety in food 2.3 Control measures for food safety 2.4 Food safety hazards 2.5 Cleaning, sanitation and waste storage and disposal practices 2.6 Food safety procedures 2.7 Monitor quality of work outcome 2.8 Hazardous events 2.9 Job roles, responsibilities and compliance
3. Underpinning skill	3.1. Using the appropriate PPE. 3.2. Interaction skills (teamwork, networking, interpersonal skills, etc. 3.3. Practicing personal hygiene and good grooming in line with workplace health and safety requirements. 3.4. Identifying food rules and regulations, food grade preservatives and food additives 3.5. Controlling the measures for minimizing food contamination for food safety 3.6. Controlling hazards 3.7. Performing waste collection, recycling, handling and disposal. 3.8. Performing food safety procedures 3.9. Performing food safety and quality responsibilities and requirements relating to the work area. 3.10. Responding quickly to the emergency situation

4. Underpinning attitudes	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace
5. Resource implications	5.1 Workplace 5.2 equipment and facilities appropriate to processes or activity. 5.3 Materials relevant to the proposed activity. 4.6 Equipment and outfits appropriate in applying safety measures.
6. Methods of assessment	6.1 Demonstration 6.2 Oral questioning 6.3 Written test 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor

Accreditation Requirements

Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	SU-AFP-03-L1-V1: Work in the food Industry
Unit Descriptor	This unit specifies the knowledge, skills and attitude required to identify roles and responsibilities and work in the food industry. It includes the tasks of identifying job roles and responsibilities in the food industry, identifying and observe OSH in the food industry, planning work activities and working with others
Nominal Hours	20 hours
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variable
1. Identify job roles and responsibilities in the food industry	1.1 Job roles and responsibilities in the food industry are identified. 1.2 Relationships within the food industry employees are identified.
2. Identify and observe OSH in the food industry.	2.1. <u>PPE</u> used in the food industry are identified and worn. 2.2. Safe work practices are followed when using equipment in the work environment.
3. Plan work activities	3.1. Common goals, objectives and tasks are identified and clarified with appropriate persons. 3.2. Individual tasks are determined and agreed on according to workplace environment.
4. Work with others	4.1 <u>Effective interpersonal skills</u> are applied to interact with others and to contribute to activities and objectives. 4.2 Assigned tasks are performed in accordance with job requirements, Work requirements are confirmed with colleagues.
Range of Variables	
Variable	Range (May Includes but not limited to)
1. PPE	1.1 Apron 1.2 Chef Jacket 1.3 Hand Gloves 1.4 Hair net 1.5 Hair cap 1.6 Face mask 1.7 Safety shoe 1.8 Shoe cover 1.9 Ear plug

	1.10 Beard net
2. Effective interpersonal skills	2.1 Basic listening and speaking skills 2.2 Use of terminology and jargon 2.3 Communicating and receiving feedback 2.4 Interpretation of instructions, 2.5 Interpretation basic principles of effective communication.
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet therequirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Followed work place rule and regulation. 1.2 Identified Common goals, objectives and tasks 1.3 Determined Individual tasks 1.4 Make a work plan 1.5 Group forming and work with others.
2. Underpinning knowledge	2.1 Positive attitudes for work others. 2.2 Define own task 2.3 Food sector in Bangladesh 2.4 Job opportunity 2.5 Written and oral language communication 2.6 OSH
3. Underpinning skill	3.1 identifying task 3.2 communicating with co workers 3.3 communicating with supervisor 3.4 writing report
4. Underpinning attitudes	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace
5. Resource implications	5.1 Workplace 5.2 equipment and facilities appropriate to processes or activity. 5.3 Stand by firefighting equipment 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant manuals, codes, standards and reference material.
6. Methods of assessment	6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning

	6.4 Written test 6.5 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
Accreditation Requirements Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Occupation Specific Unit of Competencies

Unit Code and Title	OU-AFP-PMO-01-L2-V1: Interpret Knowledge on Packaging Process, Materials and Equipment
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to demonstrate knowledge on packaging process, materials and equipment.</p> <p>It specifically includes interpreting packaging process, identifying packaging materials according to food products and identifying packaging tools and machines.</p>
Nominal Hours	25 Hours
Elements of Competency	Performance criteria (Bold & underlined terms are elaborated in the Range of Variables))
1. Interpret packaging process	1.1 Food processing is interpreted. 1.2 <u>Packaging types</u> are interpreted. 1.3 <u>Steps of packaging processes</u> are identified as per industry requirement.
2. Identify packaging materials	2.1 <u>Types of food products</u> are listed. 2.2 <u>Types of packaging materials</u> are interpreted according to food products. 2.3 Packaging materials are identified as per job requirements.
3. Identify packaging equipment	3.1 Tools and equipment are identified as per industry requirements. 3.2 <u>Tools and machines</u> for packaging are listed. 3.3 Function of packaging machines are interpreted as per job requirements.
Range of Variables	
Variable	Range (may include but not limited to):
1. Packaging types	1.1 Bottling 1.2 Wrapping 1.3 Sealing 1.4 Canning 1.5 Vacuum Packaging 1.6 Tetra Pak 1.7 Forming 1.8 Cartooning 1.9 Shrink Packaging 1.10 Blister Packing 1.11 Pillo packing 1.12 Bagging 1.13 Twisting 1.14 Tray packaging

2. Steps of packaging process	<ul style="list-style-type: none"> 2.1 Product Preparation 2.2 Package Selection 2.3 Packaging material selection 2.4 Machine preparation 2.5 Filling 2.6 Sealing 2.7 Labeling 2.8 Date Coding 2.9 Inspection 2.10 Cartoning 2.11 Storing
3. Types of food products	<ul style="list-style-type: none"> 3.1 Bakery 3.2 Beverage 3.3 Confectionary 3.4 Dairy & Ice-cream 3.5 Spices 3.6 Frozen food 3.7 Fresh Products 3.8 Cereal Products 3.9 Fruits and vegetable products 3.10 Snacks products

<p>4. Types of packaging materials</p>	<p>4.1 Bakery</p> <ul style="list-style-type: none"> ▪ Paperboard box ▪ Plastic Bag ▪ Jar ▪ Tray ▪ wrapper <p>4.2 Beverage</p> <ul style="list-style-type: none"> ▪ Pet bottle ▪ High Density Polyethylene (HDPE) bottle ▪ Glass bottle ▪ Tetra pak ▪ Aluminum can <p>4.3 Confectionary</p> <ul style="list-style-type: none"> ▪ Foil ▪ Linear Low Density Polyethylene (LLDPE) wrapper ▪ Tin Can <p>4.4 Dairy & Ice-cream</p> <ul style="list-style-type: none"> ▪ LLDP Pouch ▪ HDPE Bottle ▪ Glass Bottle ▪ Plastic Box ▪ Tin can <p>4.5 Spices</p> <ul style="list-style-type: none"> ▪ Foil Pack ▪ Plastic Jar ▪ Glass Jar <p>4.6 Frozen food</p> <ul style="list-style-type: none"> ▪ Plastic Tray ▪ Flexible Foil ▪ Paper Box <p>4.7 Fresh Produce</p> <ul style="list-style-type: none"> ▪ Plastic Wrapper ▪ Shrink-wrapped Trays <p>4.8 Cereal Products</p> <ul style="list-style-type: none"> ▪ Plastic Pack ▪ Foil Pack <p>4.9 Bags</p>
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5. Tools and machine	<p>5.1 Tools</p> <ul style="list-style-type: none"> ▪ Screw driver ▪ Spanner ▪ Hammer ▪ Knife ▪ Wrenches ▪ Allen key ▪ Thermometer ▪ Measuring tape ▪ Tester ▪ Multimeter ▪ Pressure Gauge ▪ Micro meter ▪ Metal detector ▪ Feed hoppers ▪ Screw gauge ▪ Scale ▪ Vernier caliper <p>5.2 Machines</p> <ul style="list-style-type: none"> ▪ Bunch/chain making machine ▪ Wrapping machine ▪ Blender/grinder machine ▪ Sieving Machine ▪ Sealing machine ▪ Weighing balance ▪ Bagging machine ▪ Pillow packing machine ▪ Three edges packing machine ▪ One edge packing machine ▪ Injection moulding machine ▪ Extrusion moulding machine ▪ Color blending Machine ▪ Labeling machine ▪ Inkjet printing machine/date coding ▪ Crown/cork sealer machine ▪ Washing/rinsing machine ▪ Filling machine ▪ Capping machine ▪ Cartoning machine ▪ Dosing machine ▪ Polyethylene sealer ▪ Plastic Bag sealing machine ▪ Vacuum bag sealer
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	<ul style="list-style-type: none"> ▪ Aluminum foil sealer ▪ Carbo-cooler / Gas mixing machine with tanks for sealing ▪ Nitrogen generator machine ▪ Automatic form/filling/sealing machine ▪ Forming/laminate machine ▪ Cooling/chilling machine ▪ Stacking machine ▪ Twist wrapping machine ▪ Separating machine ▪ Aseptic filling machine ▪ Can Closing / Seaming Machine ▪ Dehumidifying driers ▪ Taping machine
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet all requirements of current version of the Units of Competency.	
1. Critical aspects of competency	1.1 Interpreted packaging process. 1.2 Identified packaging materials according to food products. 1.3 Identified packaging equipment.
2. Underpinning knowledge	2.1 Types of packaging. 2.2 Types of packaging materials. 2.3 Name of Tools and machines are used in packaging 2.4 Functions of packaging machines.
3. Underpinning skills	3.1 Interpreting packaging types. 3.2 Listing types of food products. 3.3 Interpretin packaging materials. 3.4 Identifying tools and machines.
4. Required attitudes	4.1 Commitment to occupational health and safety. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communication with peers and seniors at workplace.
5. Resource implications	5.1 Workplace (actual or simulated). 5.2 Tools, equipment and facilities appropriate to the process or activity. 5.3 Materials relevant to the proposed activity. 5.4 Stand by firefighting equipment 5.5 Outfits appropriate in applying safety measures.

6. Method of assessment	<p>Methods of assessment may include but not limited to:</p> <p>6.1 Written Test.</p> <p>6.2 Demonstration.</p> <p>6.3 Oral Questioning.</p> <p>6.4 Portfolio.</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completing of the training module.</p> <p>7.2 Assessment should be done by a suitably qualified/certified assessor.</p>
<p>Accreditation Requirements</p> <p>Training providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this Units of Competency (UoC) for credit towards the award of any national qualification.</p> <p>Accredited providers assessing against this Units of Competency (UoC) must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OU-AFP-PMO-02-L2-V1: Operate Form, Fill and Seal/Capping Machine
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to operate form, fill and seal/capping machine.</p> <p>It specifically includes preparing for packaging, performing form, fill, seal/capping operation and cleaning machine and workplace.</p>
Nominal Hours	50 Hours
Elements of Competency	Performance Criteria (<u>Bold & underlined</u> terms are elaborated in the Range of Variables)
1. Prepare for work	<p>1.1 Occupational Safety and Health (OSH) is followed and <u>Personal Protective Equipment (PPE)</u> is worn.</p> <p>1.2 Required <u>room temperature</u> and <u>room humidity</u> are set and confirmed as per product standards.</p> <p>1.3 Packaging materials are collected as per product requirement.</p> <p>1.4 Form, fill, seal/capping machine is selected as per requirement.</p> <p>1.5 Pre-start checking is carried out as per standards.</p>
2. Perform form, fill, seal/capping operation	<p>2.1 Machine performance is checked and <u>parameters</u> are adjusted as per operating procedures.</p> <p>2.2 Machine is operated to form, fill and seal/cap as per operating procedures.</p> <p>2.3 Packaging processes are monitored to ensure quality production.</p> <p>2.4 <u>Problems</u> in packaging system are identified and rectified.</p> <p>2.5 Weight and volume of packaging products are checked and adjusted as per SOP.</p> <p>2.6 Finished Product is marked with label and date code as per SOP.</p> <p>2.7 Finished product is stored in allocated place as per workplace standard.</p> <p>2.8 Shut down procedure is followed as per SOP.</p>
3. Clean machine and workplace	<p>3.1 Machine and workplace are cleaned as per workplace standard.</p> <p>3.2 Waste materials are disposed in allocated space according to workplace standard.</p>
Range of variables	
Variable	Range (may include but not limited to):

1. Personal Protective Equipment (PPE)	1.1 Apron 1.2 Cotty 1.3 Gumboot/Safety shoes 1.4 Mask 1.5 Hand Gloves 1.6 Ear plug 1.7 Goggles 1.8 Hair net (Beard net if required)
2. Room temperature	2.1 15 ⁰ C to 20 ⁰ C for Beverage. 2.2 8 ⁰ C to 10 ⁰ C for Dairy and Confectionary. 2.3 2 ⁰ C to 5 ⁰ C for Dairy Storage. 2.4 18 ⁰ C to 22 ⁰ C for Bakery products. 2.5 -38 ⁰ C to -35 ⁰ C for Frozen products.
3. Room humidity	3.1 Below 35 RH for Hygroscopic Product (instant drinks). 3.2 Below 40 RH for Spices. 3.3 Below 45 RH for bakery and snacks products.
4. Parameters	4.1 Speed 4.2 Temperature 4.3 Weight 4.4 Quality
5. Problems	5.1 Capping problem 5.2 High/low filling 5.3 Date coding defect 5.4 Labeling defect 5.5 Wrapping/carton defect 5.6 Sealing defect 5.7 Leakage
Evidence Guide Evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet all requirements of current version of Units of Competency.	
1. Critical aspects of competency	1.1 Prepared for packaging. 1.2 Performed form, fill, seal/capping operation. 1.3 Cleaned machine and workplace.
2. Underpinning knowledge	2.1 OSH procedures. 2.2 Room temperature and room humidity. 2.3 Functions of form, fill and seal/capping machine 2.4 Different packaging problems and rectification 2.5 Pre-start checking procedures. 2.6 Machine shutdown procedures. 2.7 Waste materials disposing procedures.

3. Underpinning skills	3.1 Setting room temperature and room humidity. 3.2 Checking machine performance and adjusting parameters. 3.3 Monitoring packaging process. 3.4 Identifying problems and rectifying the issues 3.5 Storing finished products.
4. Required attitudes	4.1 Commitment to occupational health and safety. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Environmental concerns. 4.5 Eagerness to learn. 4.6 Tidiness and timeliness. 4.7 Respect for rights of peers and seniors in workplace. 4.8 Communication with peers and seniors in workplace.
5. Resource implications	5.1 Workplace (actual or simulated). 5.2 Tools, equipment and facilities appropriate to the process or activity. 5.3 Materials relevant to the proposed activity. 5.4 Stand by firefighting equipment 5.5 Outfits appropriate in applying safety measures.
6. Method of assessment	Methods of assessment may include but not limited to: 6.1 Written Test. 6.2 Demonstration. 6.3 Oral questioning. 6.4 Portfolio.
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by a suitably qualified/certified assessor.
Accreditation Requirements Training providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance body, or a body with delegated authority for quality assurance to conduct training and assessment against this Units of Competency for credit towards the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	OU-AFP-PMO-03-L2-V1: Operate Blending, Sieving and Packaging Machine
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to operate blending, sieving and packaging machine.</p> <p>It specifically includes preparing for packaging, performing blending, sieving and packaging operation and cleaning machine and workplace.</p>
Nominal Hours	50 Hours
Elements of Competency	Performance Criteria (<u>Bold & underlined</u> terms are elaborated in the Range of Variables)
1. Prepare for work	<p>1.1 Occupational Safety and Health (OSH) is followed and Personal Protective Equipment (PPE) is worn.</p> <p>1.2 Required room temperature and room humidity is set and confirmed as per product standards.</p> <p>1.3 Packaging materials are collected as per product requirement.</p> <p>1.4 Blending, sieving and packaging machines are selected as per requirement.</p> <p>1.5 Pre-start checking is carried out as per standards.</p>
2. Perform blending, sieving and packaging operation	<p>2.1 Machine performance is checked and <u>parameters</u> are adjusted as per operating procedures.</p> <p>2.2 Machines are operated as per operating procedures.</p> <p>2.3 Packaging processes are monitored to ensure quality production.</p> <p>2.4 <u>Problems</u> in packaging system are identified and rectified.</p> <p>2.5 Weight and volume of packaging products are checked and adjusted as per SOP.</p> <p>2.6 Finished Product is marked with label and date code as per SOP.</p> <p>2.7 Finished product is stored in allocated place as per workplace standard.</p> <p>2.8 Shut down procedure is followed as per SOP.</p>
3. Clean Machine and Workplace	<p>3.1 Machine and workplace are cleaned as per workplace standard.</p> <p>3.2 Waste Materials are disposed in allocated space according to workplace standard.</p>
Range of variables	
Variable	Range (may include but not limited to):

1. Parameters	1.1 Speed 1.2 Temperature 1.3 Size 1.4 Quantity 1.5 Uniformity
2. Problems	2.1 Packet Leakage. 2.2 Sealing defect 2.3 Date coding fault/defect. 2.4 Labeling problem. 2.5 Packet shape problem. 2.6 Weight or quantity variation.
Evidence Guide Evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet all requirements of current version of Units of Competency.	
1. Critical aspects of competency	1.1 Prepared for packaging. 1.2 Performed blending, sieving and packaging operation. 1.3 Cleaned machine and workplace.
2. Underpinning knowledge	2.1 OSH procedures. 2.2 Types of packaging materials. 2.3 Types of blending, sieving and packaging machines. 2.4 Functions of blending, sieving and packaging machines 2.5 Different problems of packaging and their solutions 2.6 Parameter adjusting procedures. 2.7 Quality standards. 2.8 Shut down procedures. 2.9 Machine and workplace cleaning procedures.
3. Underpinning skills	3.1 Collecting packaging materials. 3.2 Carrying out pre-start checking. 3.3 Operating machines. 3.4 Monitoring packaging machine. 3.5 Marking finished product with label and date code. 3.6 Storing finished product.
4. Required attitudes	4.1 Commitment to occupational health and safety. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Environmental concerns. 4.5 Eagerness to learn. 4.6 Tidiness and timeliness. 4.7 Respect for rights of peers and seniors in workplace. 4.8 Communication with peers and seniors in workplace.

5. Resource implications	5.1 Workplace (actual or simulated). 5.2 Tools, equipment and facilities appropriate to the process or activity. 5.3 Materials relevant to the proposed activity. 5.4 Stand by firefighting equipment 5.5 Outfits appropriate in applying safety measures.
6. Method of assessment	Methods of assessment may include but not limited to: 6.1 Written test. 6.2 Demonstration. 6.3 Oral questioning. 6.4 Portfolio.
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by a suitably qualified/certified assessor.
Accreditation Requirements Training providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance body, or a body with delegated authority for quality assurance to conduct training and assessment against this Units of Competency for credit towards the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	OU-AFP-PMO-04-L2-V1: Operate Flow Wrapping Machine
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to operate flow wrapping machine.</p> <p>It specifically includes preparing for work, performing wrapping operation and cleaning machine and workplace.</p>
Nominal Hours	50 Hours
Elements of Competency	Performance Criteria (<u>Bold & underlined</u> terms are elaborated in the Range of Variables)
1. Prepare for packaging	<p>1.1 Occupational Safety and Health (OSH) is followed and Personal Protective Equipment (PPE) is worn.</p> <p>1.2 Required room temperature and room humidity is set and confirmed as per product standards.</p> <p>1.3 Packaging materials are collected as per product requirement.</p> <p>1.4 Wrapping machines are selected as per requirement.</p> <p>1.5 Pre-start checking is carried out as per standards.</p>
2. Perform wrapping operation	<p>2.1 Machine performance is checked and <u>parameters</u> are adjusted as per operating procedures.</p> <p>2.2 <u>Wrapping machines</u> are operated as per job requirements.</p> <p>2.3 Packaging processes are monitored to ensure quality production.</p> <p>2.4 <u>Problems</u> in packaging system are identified and rectified.</p> <p>2.5 Weight and volume of packaging products are checked and adjusted as per SOP.</p> <p>2.6 Finished Product is marked with label and date code as per SOP.</p> <p>2.7 Finished product is stored in allocated place as per workplace standard.</p> <p>2.8 Shut down procedure is followed as per SOP</p>
3. Clean machine and workplace	<p>3.1 Machine and workplace are cleaned as per workplace standard.</p> <p>3.2 Waste materials are disposed in allocated space according to workplace standard.</p>
Range of variables	
Variable	Range (may include but not limited to):
1. Parameters	<p>1.1 Speed</p> <p>1.2 Temperature</p> <p>1.3 Cut off length</p> <p>1.4 Quantity</p>

	1.5 Uniformity
2. Wrapping machines	2.1 Twist-wrap 2.2 High speed wrapping 2.3 Vertical wrapping 2.4 Horizontal wrapping
3. Problems	3.1 Packet Leakage 3.2 Sealing defects 3.3 Date coding fault/defect 3.4 Labeling problem 3.5 Packet shape problem 3.6 Weight or quantity variation 3.7 Eye mark problem
Evidence Guide Evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet all requirements of current version of Units of Competency.	
1. Critical aspects of competency	1.1 Prepared for packaging. 1.2 Performed wrapping operation. 1.3 Cleaned machine and workplace.
2. Underpinning knowledge	2.1 Types of packaging materials. 2.2 Pre-start checking procedures. 2.3 Packaging process. 2.4 Functions of flow wrapping machine 2.5 Different defects of packaging and their rectification 2.6 Weight and volume checking procedures. 2.7 Shut down procedures. 2.8 Machine and workplace cleaning procedures. 2.9 Waste disposal procedures.
3. Underpinning skills	3.1 Setting and confirming room temperature and room humidity. 3.2 Checking machine performance and adjusting parameters. 3.3 Operating wrapping machines. 3.4 Monitoring packaging process. 3.5 Marking finished product with label and date code. 3.6 Storing finished product.
4. Required attitudes	4.1 Commitment to occupational health and safety. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Environmental concerns. 4.5 Eagerness to learn. 4.6 Tidiness and timeliness. 4.7 Respect for rights of peers and seniors in workplace. 4.8 Communication with peers and seniors in workplace.

5. Resource implications	5.1 Workplace (actual or simulated). 5.2 Tools, equipment and facilities appropriate to the process or activity. 5.3 Materials relevant to the proposed activity. 5.4 Stand by firefighting equipment 5.5 Outfits appropriate in applying safety measures.
6. Method of assessment	Methods of assessment may include but not limited to: 6.1 Written test. 6.2 Demonstration. 6.3 Oral questioning. 6.4 Portfolio.
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by a suitably qualified/certified assessor.
Accreditation Requirements Training providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance body, or a body with delegated authority for quality assurance to conduct training and assessment against this Units of Competency for credit towards the award of any national qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Validation of Competency Standard

The Competency Standards for National Skills Certificate Level-2 in Packaging Machine Operation is validated by NSDA on 27 September, 2023.

List of members in the validation workshop:

Sl. No.	Name and Address	Position in the committee	Signature
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