



COMPETENCY STANDARD FOR PRODUCTION SUPERVISION IN FOOD INDUSTRY

Level: 3

(Agro Food Sector)

Competency Standard Code: CS-AF-PSFI-L3-EN-V1



**National Skills Development Authority
Chief Advisor's Office
Government of the People's Republic of Bangladesh**

Copyright

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This Competency Standard for Production Supervision in Food Industry 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.

This document is owned by the National Skills Development Authority (NSDA) of the People's Republic of Bangladesh. This document has been developed by Building Youth Employability Through Skills (BYETS) project (funded by the Embassy of the Kingdom of Netherlands) of Swisscontact in association with Agro Food ISC, industry representatives, academia, related specialist, trainer and related employees.

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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 skills 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. **"Production Supervision in Food Industry"** is selected as one of the priority occupations of Agro Food Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), 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 National Skills Qualification Framework (NSQF) under Bangladesh National Qualification Framework 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 components 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 representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in Agro Food Sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasizing 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 guide

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 components 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, Level-3 in Production Supervision in Food Industry, Agro Food Sector

Level Descriptors of Skills Sector, BNQF 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

CS	Competency Standard
ISC	Industry Skills Council
NSDA	National Skills Development Authority
NSQF	National Skills Qualifications Framework
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SCVC	Standards and Curriculum Validation Committee
STP	Skills Training Provider
SOP	Standard Operating Procedure
UoC	Unit of Competency
4IR	4 th Industrial Revolution

Approved by
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Table of Contents

Copyright.....	i
Introduction	ii
Overview	iii
Level Descriptors of NSQF (BNQF 1-6)	iv
List of Abbreviations.....	v
Course Structure.....	1
Units & Elements at Glance	2
Generic Units of Competencies	5
GU-02-L1-V1: Apply Occupational Safety and Health (OSH) Procedure in the Workplace	6
GU-04-L1-V1: Work in a Team Environment	9
GU-02-L2-V1: Carryout Workplace Interaction	11
Sector Specific Units of Competencies.....	14
SU-AF-01-L1-V1: Work in the Food Industry.....	15
SU-AF-02-L3-V1: Follow Food Safety, Hygiene and HACCP Requirements	18
Occupation Specific Units of Competencies.....	22
OU-AF-PSFI-01-L3-V1: Interpret Production Supervision in Food Industry	23
OU-AF-PSFI-02-L3-V1: Interpret Regulatory Compliance and Supervisory Attributes	28
OU-AF-PSFI-03-L3-V1: Manage the Materials.....	33
OU-AF-PSFI-04-L3-V1: Perform Activities of Production Lines	32
OU-AF-PSFI-05-L3-V1: Control Quality of Process and Products	40
Development of Competency Standard.....	43
Validation of Competency Standard	45

**Competency Standards for National Skill Certificate, Level-3 in
Production Supervision in Food Industry in Agro Food Sector**

Course Structure

SL No	Unit code and Title		UOC Level	Nominal (hours)
Generic Units of Competencies				
1.	GU-02-L1-V1	Apply Occupational Safety and Health (OSH) Procedure in the Workplace	2	15
2.	GU-04-L1-V1	Work in a Team Environment	2	20
3.	GU-02-L2-V1	Carryout Workplace Interaction	2	15
Sub Total				50
Sector Specific Units of Competencies				
4.	SU-AF-01-L1-V1	Work in the Food Industry	2	20
5.	SU-AF-02-L3-V1	Follow Food Safety, Hygiene and HACCP Requirements	3	20
Sub Total				40
Occupation Specific Units of Competencies				
6.	OU-AF-PSFI-01-L3-V1	Interpret Production Supervision in Food Industry	3	20
7.	OU-AF-PSFI-02-L3-V1	Interpret Regulatory Compliance and Supervisory Attributes	3	40
8.	OU-AF-PSFI-03-L3-V1	Manage the materials	3	15
9.	OU-AF-PSFI-04-L3-V1	Perform Activities of Production Lines	3	40
10.	OU-AF-PSFI-05-L3-V1	Control Quality of process and products	3	20
Sub Total				135
Total Learning Hours				225
On the Job				135
Total Nominal Hours				360

Units & Elements at Glance

Generic Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
GU-02-L1-V1	Apply Occupational Safety and Health (OSH) procedure In the Workplace	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 a Team Environment	1. Define team role and scope 2. Identify individual role and responsibility 3. Participate in team discussions 4. Work as a team member	20
GU-02-L2-V1	Carryout Workplace Interaction	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			50

Sector specific competencies

Code	Unit of competency	Elements of competency	Duration (hours)
SU- AFP -01-L2-V1	Work in the Food Industry	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
SU-AFP-02-L3-V1	Follow Food Safety, Hygiene and HACCP Requirements	1. Practice personal hygiene and good grooming standards 2. Follow safe food handling and sanitation practices 3. Participate in a Hazard Analysis and Critical Control Points (HACCP) team 4. Monitor quality of work outcome 5. Identify and act on quality deficits and / or food safety hazards	20
Total hours			40

Occupation specific competencies

Code	Unit of competency	Elements of competency	Duration (hours)
OU-AF-PSFI-01-L3-V1	Interpret Production Supervision in Food Industry	1. Recognize Food Industry and Production Systems 2. Illustrate the job responsibilities of a production Supervisor	20
OU-AF-PSFI-02-L3-V1	Interpret Regulatory Compliance and Supervisory Attributes	1. Interpret Health and Safety procedure 2. Identify Good Hygiene Practices 3. Perform Housekeeping and pest control 4. Ensure Food Safety Standards 5. Practice Leadership and Effective Communication	40
OU-AF-PSFI-03-L3-V1	Manage the materials	1. Identify the Raw Materials and Packaging Materials (RM&PM) 2. Supervise Materials Stock Rotation 3. Manage Waste Materials	15
OU-AF-PSFI-04-L3-V1	Perform Activities of Production Lines	1. Follow Production Process 2. Manage Man, Machine and Materials (3M) 3. Execute Production Planning and Key Performance Indicators (KPI) 4. Perform Autonomous Maintenance 5. Clean and maintain materials and workplace	40
OU-AF-PSFI-05-L3-V1	Control Quality of Process and Products	1. Identify Process and Quality Parameters 2. Reduce Nonconformity 3. Respond to Traceability	20
Total Hours			135

Generic Units of Competencies

Unit Code and Title	GU-02-L1-V1: Apply Occupational Safety and Health (OSH) Procedure in the Workplace
Unit Descriptor	This unit covers the knowledge, skills and attitudes (KSA) required in applying occupational safety and health (OSH) procedures in the workplace. It specifically includes identifying OHS policies and procedures, following OSH procedure, reporting to emergencies, and maintaining personal well-being.
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 Face mask 4.2 Gloves 4.3 Safety boots 4.4 Overalls 4.5 Goggles and safety glasses
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: 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	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 uses 2.8 Personal Hygiene Practices 2.9 OHS Awareness
3. Underpinning skills	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	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	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	Competency should be assessed by: 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 NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated 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 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.

Unit Code and Title	GU-04-L1-V1: Work in a Team Environment
Unit Descriptor	This unit covers the knowledge, skills and attitudes (KSAs) required in working in a team environment. It includes defining team role and scope, identifying individual role and responsibility, participating in team discussions and working as a team member.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
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. Team Members	1.1 Coach/mentor 1.2 Supervisor/Manager 1.3 Peers/Colleagues 1.4 Employee representative
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: 1.1 demonstrated knowledge in working in a team environment. 1.2 satisfied the requirements mentioned in the

	1.3 Performance Criteria and Range of Variables
2. Underpinning knowledge	2.1 Team Structure, Role and Responsibility 2.2 Individual Members' Roles and Responsibilities 2.3 Communication Flow and Reporting Structures 2.4 Team Planning 2.5 Interpersonal Communication Skills 2.6 Team Meeting Procedures 2.7 OHS Practices
3. Underpinning skills	3.1 Identifying the role and responsibility of the team 3.2 Identifying roles and responsibilities of individual members 3.3 Participating in team discussions 3.4 Working as a team member
4. Required attitude	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	5.1 Pens 5.2 Telephone 5.3 Computer 5.4 Writing materials 5.5 Online communication
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
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

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Unit Code and Title	GU-02-L2-V1: Carryout Workplace Interaction
Nominal Hours	15 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to carry out workplace interaction. 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.
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables
1. Interpret workplace communication and etiquette	1.1 Workplace code of conducts are interpreted as per organizational guidelines 1.2 Appropriate lines of communication are maintained with supervisors and colleagues 1.3 Workplace interactions are conducted in a <u>courteous manner</u> to gather and convey information 1.4 Questions about routine <u>workplace procedures and matters</u> are asked and responded as required
2. Interpret Workplace Documents	2.1 Workplace documents are interpreted as per standard. 2.2 Assistance is taken to aid comprehension when required from peers / supervisors 2.3 Visual information / symbols / signage's are understood and followed 2.4 Specific and relevant information are accessed from <u>appropriate sources</u> 2.5 Appropriate medium is used to transfer information and ideas
3. Participate in workplace meetings and discussions	3.1 Team meetings are attended on time and followed meeting procedures and etiquette 3.2 Own opinions are expressed and listened to those of others without interruption 3.3 Inputs are provided consistent with the meeting purpose and interpreted and implemented meeting outcomes
4. Practice professional ethics at workplace	4.1 Responsibilities as a team member are demonstrated and kept promises and commitments made to others 4.2 Tasks are performed in accordance with workplace procedures 4.3 Confidentiality is respected and maintained 4.4 Situations and actions considered inappropriate or which present a conflict of interest are avoided
Range of variables	

Variables	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 1.1 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	3.1 Commitment to occupational health and safety 3.2 Promptness in carrying out activities 3.3 Sincere and honest to duties 3.4 Environmental concerns 3.5 Eagerness to learn

	3.6 Tidiness and timeliness 3.7 Respect for rights of peers and seniors in workplace 3.8 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
7. Context of Assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module 7.2 Assessment should be done by NSDA certified 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.	

Sector Specific Units of Competencies

Unit Code and Title	SU-AF-01-L1-V1: Work in the Food Industry
Nominal Hours	20 Hours
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.
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables.
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	
Variables	Range (may include but not limited to):
1. PPE	1.1 Apron 1.2 Hand Gloves 1.3 Hair net 1.4 Hair cap 1.5 Face mask 1.6 Safety shoe 1.7 Shoe cover 1.8 Ear plug 1.9 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 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 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 skills	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	Competency should be assessed by 6.1 Demonstration 6.2 Oral questioning 6.3 Written test

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 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 any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	SU-AF-02-L3-V1: Follow Food Safety, Hygiene and HACCP Requirements
Nominal Hours	20 Hours
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to follow food safety, hygiene and HACCP management. It specifically includes the tasks of practicing personal hygiene and good grooming standards, following safe food handling and sanitation practices, participating in a Hazard Analysis and Critical Control Points (HACCP) team, monitoring quality of work outcome, identifying and act on quality deficits and / or food safety hazards.
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables.
1. Practice personal hygiene and good grooming standards	1.1 Personal hygiene and good grooming are practiced in line with workplace health and safety requirements. 1.2 Health conditions and/or illness are reported as required by the food safety program. 1.3 <u>Clothing and footwear</u> are appropriate for the food handling task and meets the requirements of the food safety program. 1.4 Movement around the workplace complies with the food safety program.
2. Follow safe food handling and sanitation practices	2.1 <u>Food handling</u> requirements are identified. 2.2 Safe food handling practices are followed in line with workplace sanitation regulations and the food safety code. 2.3 The workplace is maintained in a clean and tidy order to meet workplace standards.
3. Participate in a Hazard Analysis and Critical Control Points (HACCP) team	3.1 A HACCP team is formed following industry standard 3.2 Potential sources of microbiological, chemical and physical hazards are identified 3.3 Critical Control Points and critical limits for taking corrective action are set to prevent potential hazards 3.4 Monitoring system is established according to standard operating procedures (SOP) 3.5 Corrective action procedure and verification system are established according to standard procedures 3.6 Paper work related to the HACCP system and all critical control points are recorded as per standard procedure.
4. Monitor quality of	4.1 Quality requirements are identified.

work outcome	4.2 Inputs are inspected to confirm capability to meet quality requirements. 4.3 Work is conducted and monitored to produce required outcomes.
5. Identify and act on quality deficits and / or food safety hazards	5.1 Work area, materials, equipment and product are routinely checked to ensure compliance with quality and / or food safety requirements. 5.2 <u>Processes, practices or conditions</u> that are not consistent with quality standards or food safety program are identified. 5.3 Quality variations and / or <u>food safety</u> hazards are rectified or removed within the level of responsibility and in accordance with workplace procedures. 5.4 Quality variations and / or food safety outside the scope of individual responsibility are reported to appropriate personnel according to workplace reporting requirements.
Range of Variables	
Variables	Range (may include but not limited to):
1. Personal Protective Equipment (PPE)	1.1 Apron 1.2 Protective clothing 1.3 Gloves 1.4 Hair net 1.5 Other PPE as per OSH requirements
2. Clothing and footwear	2.1 Purpose designed overalls or uniforms 2.2 Hair-nets 2.3 Beard snoods 2.4 Gloves
3. Food handled and stored	3.1 Raw materials 3.2 Consumables 3.3 Part-processed product 3.4 Finished product 3.5 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. Food safety	5.1 Failure to check delivery temperatures of potentially hazardous chilled food 5.2 Failure to place temperature-sensitive food in temperature- controlled storage conditions promptly 5.3 Failure to wash hands when required 5.4 Use of cloths for unsuitable purposes
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 workplace following OSH requirements. 1.2 maintained personal hygiene and worn PPE as per OSH requirements. 1.3 cleaned equipment and workplace for production and hygiene requirements. 1.4 rectified or removed quality variations and/or food safety hazards with the level of responsibility and in accordance with workplace procedures. 1.5
2. Underpinning knowledge	2.1 Practice 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 HACCP team 2.8 Monitor quality of work outcome. 2.9 Job roles, responsibilities and compliance.
3. Underpinning skills	3.1 Practicing personal hygiene and good grooming in line with workplace health and safety requirements. 3.2 Identifying food rules and regulations, food grade preservatives and food additives to meet food production safety requirements according to BSTI. 3.3 Controlling the measures for minimizing food contamination for food safety (for example keeping out micro-organisms, maintenance of anaerobic conditions, use of low temperatures, drying, use of chemical preservatives etc.). 3.4 Performing waste collection, recycling, handling and disposal. 3.5 Performing food safety procedures such as: checking

	delivery temperatures of potentially hazardous chilled food, placing temperature-sensitive food in temperature-controlled storage conditions promptly, washing hands when required, use of cloths for unsuitable purposes. 3.6 Performing food safety and quality responsibilities and requirements relating to the work area. 3.7 Responding quickly and to take safety precautions for different hazardous situations.
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 concern. 4.7 Respect to peers and seniors at workplace. 4.8 Communicate with peers and seniors at workplace.
5. Resource implications	5.1 Workplace (actual or simulated) 5.2 Tools, equipment and facilities appropriate to processes or activities materials relevant to the proposed activity.
6. Methods of assessment	Competency should be assessed by 6.1 Demonstration 6.2 Oral questioning 6.3 Written test
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 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 any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Occupation Specific Units of Competencies

Unit Code and Title	OU-AF-PSFI-01-L3-EN-V1: INTERPRET PRODUCTION SUPERVISION IN FOOD INDUSTRY
Unit Descriptor	This unit covers the skills, knowledge and attitude required to Interpret Production Supervision in Food Industry. It specifically includes recognizing food industry and production systems and illustrating the job responsibilities of a production Supervisor.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Recognize Food Industry and Production Systems	1.1. <u>Types of food industries</u> are identified 1.2. <u>Basic norms for food production</u> are interpreted as per industrial practice 1.3. <u>Production process</u> of different foods are interpreted as per workplace standard 1.4. <u>Terminology</u> used in Production Supervision in Food Industry are recognized
2. Illustrate the job responsibilities of a production Supervisor	2.1. <u>Job responsibilities of production supervisor</u> are recognized 2.2. <u>Special requirements to work in food industry</u> are interpreted
Range of Variables	
Variables	Range (may include but not limited to):
1. Types of food industries	1.1 Food Processing and Manufacturing industry (Rice, Flour, Edible oil, Sugar, Salt) 1.2 Food Packaging Industry 1.3 Frozen and Refrigerated Foods industry 1.4 Beverage Industry 1.5 Confectionery and Snack Foods Industry 1.6 Canned and Preserved Foods Industry 1.7 Organic and Health Foods Industry 1.8 Dairy food industry 1.9 Poultry food industry 1.10 Fish processing industry 1.11 Meat processing industry 1.12 Tea processing industry 1.13 Seafood Industry 1.14 Catering and Food Service Industry 1.15 Spice and Flavor Industry

2. Basic norms for food production	2.1 Good Manufacturing Practices (GMP) 2.2 Hazard Analysis and Critical Control Points (HACCP) 2.3 Food Safety and Hygiene Standards 2.4 Quality Control (QC) 2.5 Process parameter Control (Temperature, Pressure, Time) 2.6 Allergen Control 2.7 Labeling and Packaging 2.8 Compliance with Food Safety Regulations 2.9 Environmental Controls 2.10 5S practice
3. Production process	3.1 Raw Material Sourcing 3.1.1 Procurement 3.1.2 Transportation 3.1.3 Inspection and Testing 3.1.4 Storage 3.2 Preparation 3.2.1 Cleaning and Sorting 3.2.2 Milling and Grinding 3.2.3 Cutting and Chopping 3.2.4 Blanching 3.3 Processing 3.3.1 Cooking or Heating 3.3.2 Mixing and Blending 3.3.3 Fermentation 3.3.4 Preservation Methods 3.3.5 Homogenization 3.3.6 Emulsification 3.4 Formulation and Recipe Development 3.4.1 Recipe Creation 3.4.2 Additives 3.5 Quality Control (QC) 3.5.1 Inline Testing 3.5.2 Microbial Testing 3.6 Packaging 3.6.1 Filling and Sealing 3.6.2 Vacuum Sealing 3.7 Labeling 3.7.1 Nutritional Information 3.7.2 Batch Codes and Traceability 3.8 Storage and Distribution 3.8.1 Cold Storage 3.8.2 Warehousing

4. Terminology	4.1 Batch/Lot 4.2 Downtime 4.3 Shelf Life 4.4 Food Additives 4.5 Contamination 4.6 Allergen 4.7 Hazard 4.8 Critical Control Point (CCP) 4.9 Pre Requisite Program (PRP) & Operational Pre Requisite Program (OPRP) 4.10 Good Manufacturing Practices (GMP) 4.11 Sterilization 4.12 Pasteurization 4.13 Food Safety Management System (FSMS) 4.14 ISO 22000 4.15 Vacuum Sealing 4.16 Use-by Date 4.17 Best-before Date 4.18 Preservative 4.19 pH Level 4.20 Standard Operating Procedure (SOP) 4.21 Deviation 4.22 Corrective Action and Preventive Action 4.23 Clean-in-Place (CIP) 4.24 Pest Control Program 4.25 Cold Chain 4.26 FIFO 4.27 LIFO 4.28 Traceability 4.29 Product recall
5. Job responsibilities of production supervisor	5.1 Supervising Production Operations 5.2 Quality Control and Assurance 5.3 Workforce Management 5.4 Safety and Compliance 5.5 Process Improvement 5.6 Inventory and Resource Management 5.7 Production Planning and Scheduling 5.8 Problem Solving and Troubleshooting 5.9 Reporting and Documentation 5.10 Coordination with Other Departments

6. Special requirements to work in food industry	6.1 Knowledge of Food Safety and Hygiene Standards 6.2 Knowledge of Regulatory Compliance 6.3 Interest in Food Science and Innovation 6.4 Ability to Work in a Fast-Paced Environment 6.5 Technical Skills 6.6 Special Attention to work 6.7 Physical Fitness and Stamina 6.8 Teamwork and Communication Skills 6.9 Problem-Solving Skills 6.10 Adaptability and Flexibility 6.11 Commitment to Continuous Learning
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: 1.1 identified types of food industries 1.2 interpreted production process of different foods 1.3 recognized job responsibilities of a production supervisor 1.4 interpreted special requirements to work in food industry
2. Underpinning knowledge	2.1 Food industries 2.2 Basic norms for food production 2.3 Production process of different foods 2.4 Food industry related Terminology 2.5 Job responsibilities of production supervisor 2.6 Special requirements to work in food industry
3. Underpinning skills	3.1 Identifying different types of food industries 3.2 Interpreting basic norms and production process of different foods 3.3 Recognizing and listing job responsibilities of production supervisor
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace (simulated or actual) 5.2 Learning materials 5.3 Relevant resources
6. Methods of assessment	Competency should be assessed by:

	6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
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 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 BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	OU-AF-PSFI-02-L3-EN-V1: INTERPRET REGULATORY COMPLIANCE AND SUPERVISORY ATTRIBUTES
Unit Descriptor	This unit covers the skills, knowledge and attitude required to Interpret Regulatory Compliance and Supervisory Attributes. It specifically Interpreting Health and Safety procedure, Identifying Good Hygiene Practices, performing Housekeeping and pest control, Ensuring Food Safety Standards and Practicing Leadership and Effective Communication.
Nominal Hours	40 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Interpret Health and Safety procedure	1.1 <u>Personal hygiene for food handlers</u> are interpreted 1.2 <u>Workers safety measures</u> are recognized as per Standard Operating Procedure (SOP) 1.3 <u>Safe use of chemicals</u> is interpreted 1.4 <u>Workplace signage</u> are identified
2. Identify Good Hygiene Practices	2.1 <u>Good hygiene practices</u> are interpreted 2.2 Cleaning and sanitation of workplace is maintained 2.3 <u>Factors of equipment hygiene</u> are identified 2.4 Clean in Place (CIP) and Clean out of Place (COP) is maintain in case of equipment hygiene
3. Perform Housekeeping and Pest Control	3.1 Housekeeping for food industries are interpreted 3.2 <u>Process of housekeeping</u> in food industries are maintained as per workplace standard 3.3 <u>5S</u> is maintained as per SOP 3.4 Housekeeping procedure are maintained during product stacking 3.5 <u>Pest control program</u> is implemented as per requirement
4. Ensure Food Safety Standards	4.1 <u>Food safety standards</u> are identified 4.2 Features of main food safety standards are interpreted 4.3 <u>Food Safety Audits</u> are interpreted 4.4 <u>Food safety audit procedures</u> are recognized 4.5 Food safety standards are maintained
5. Practice Leadership and Effective Communication	5.1 Leadership and <u>leadership qualities</u> are interpreted

	5.2 <u>Leadership role of a supervisor</u> are demonstrated as per workplace standard 5.3 Conflicts are managed as per organizational policy and personal capability 5.4 Communication and <u>communication methods</u> are recognized 5.5 Internal and external communication are maintained as per standard procedure
Range of Variables	
Variables	Range (may include but not limited to):
1. Personal hygiene for food handlers	1.1 Personal Cleanliness 1.2 Hand and foot washing 1.3 Personal Protective Equipment (PPE) 1.4 No Jewelry or Loose Accessories 1.5 Health Screening/ check up
2. Workers safety measures	2.1 Permit To Work (PTW) 2.2 Proper Lifting Techniques 2.3 Machinery Safety 2.4 Ergonomic Workstations 2.5 Slips, Trips and Falls Prevention
3. Safe use of chemicals	3.1 Use of Approved Cleaning Agents 3.2 Use of food grade chemicals 3.3 Material Safety Data Sheets (MSDS) 3.4 Certificate of Analysis (COA) 3.5 Chemical Controlling System 3.6 Employee orientation
4. Workplace signage	4.1 Safety Signs 4.2 Hygiene Reminders
5. Good hygiene practices	5.1 Personal Hygiene 5.2 Waste Management 5.3 Pest Control 5.4 Facilities Hygiene 5.5 Temperature and Humidity Control 5.6 Employee Health and Training 5.7 Ventilation
6. Factors of equipment hygiene	6.1 Food-Grade Materials 6.2 Regular Cleaning Schedules 6.3 Effective Cleaning Agents 6.4 Rinsing 6.5 Sanitization

7. Process of housekeeping	7.1 Planning and Scheduling 7.2 Assign Roles 7.3 Daily Cleaning Tasks 7.4 Deep Cleaning 7.5 Waste Segregation 7.6 Sanitizing Waste Areas 7.7 Monitoring 7.8 Reporting
8. 5S	8.1 Sort 8.2 Set in Order 8.3 Shine 8.4 Standardize 8.5 Sustain
9. Pest control program	9.1 Assessment and Inspection 9.2 Develop a Pest Control Plan 9.3 Structural and Sanitation Measures 9.4 Implementation of Control Measures 9.5 Monitoring and Record Keeping
10. Food safety standards	10.1 HACCP (Hazard Analysis and Critical Control Points) 10.2 ISO 22000 (Food Safety Management System) 10.3 GMP (Good Manufacturing Practices) 10.4 BRCGS (British Retail Consortium Global Standards) 10.5 FSSC 22000 (Food Safety System Certification)
11. Food Safety Audits	11.1 Internal Audit 11.2 Announced Audit 11.3 Unannounced Audit
12. Food safety audit procedures	12.1 Pre-Audit Preparation 12.2 Attend Audit 12.3 Receive Audit Report 12.4 Corrective Actions 12.5 Follow-Up
13. Leadership qualities	13.1 Planning 13.2 Motivation 13.3 Decision making 13.4 Adaptability 13.5 Accountability 13.6 Time management 13.7 Fair judgement 13.8 Set Personal Examples

14. Leadership role of a supervisor	14.1 Ensuring compliance 14.2 Managing staffs 14.3 Ensuring operational efficiency 14.4 Ensuring customer satisfaction 14.5 Ensure quality 14.6 Maintaining safety 14.7 Carrying out performance evaluation 14.8 Solving problems
15. Communication methods	15.1 Verbal Communication 15.2 Non-Verbal Communication 15.3 Written Communication 15.4 Visual Communication 15.5 Digital Communication
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: 1.1 interpreted health and safety procedure 1.2 identified good hygiene practices 1.3 performed housekeeping and pest control 1.4 ensured food safety standards 1.5 practiced leadership and effective communication
2. Underpinning knowledge	2.1 Personal hygiene for food handlers 2.2 Workers safety measures 2.3 Safe use of chemicals 2.4 Workplace signage 2.5 Good hygiene practices 2.6 Cleaning and sanitation 2.7 Factors of equipment hygiene 2.8 Clean in Place (CIP) and Clean out of Place (COP) 2.9 Housekeeping 2.10 5S 2.11 Pest control 2.12 Food safety standards 2.13 Food safety audit 2.14 Leadership 2.15 Communication
3. Underpinning skills	3.1 Interpreting Health and Safety procedure 3.2 Identifying Good Hygiene Practices

	3.3 Performing Housekeeping and Pest Control 3.4 Ensuring Food Safety Standards 3.5 Practicing Leadership and Effective Communication
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace (simulated or actual) 5.2 Relevant materials for housekeeping and pest control 5.3 Food safety audit checklist 5.4 Learning materials
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
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 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 BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	OU-AF-PSFI-03-L3-EN-V1: MANAGE THE MATERIALS
Unit Descriptor	This unit covers the skills, knowledge and attitude required to Manage the materials. It specifically includes Identifying the Raw Materials and Packaging Materials (RM&PM), Supervising Materials Stock Rotation and Managing Waste Materials.
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify the Raw Materials and Packaging Materials (RM&PM)	1.1 <u>Raw materials for food industries</u> are identified as per products category 1.2 Raw materials condition is inspected as per standard procedure 1.3 Date of manufacture and expiry of raw materials are checked 1.4 <u>Packaging materials for food industries</u> are identified
2. Supervise Materials Stock Rotation	2.1 Materials stock rotation is interpreted 2.2 <u>Stock rotation methods</u> are interpreted and followed 2.3 <u>Best practices of stock rotation</u> are recognized 2.4 Stock rotation is supervised as per workplace standard
3. Manage Waste Materials	3.1 <u>Waste materials in food industry</u> are identified and listed 3.2 <u>Types of waste for segregation</u> are recognized 3.3 Segregation of waste materials are performed as per workplace standard 3.4 Concepts of <u>5R</u> are interpreted and followed
Range of Variables	
Variables	Range (may include but not limited to):
1. Raw materials for food industries	1.1 Basic Ingredients 1.1.1 Fruits and Vegetables 1.1.2 Grains and Cereals 1.1.3 Meats and Poultry 1.1.4 Dairy Products 1.1.5 Fats and Oils 1.1.6 Sugars and Sweeteners 1.2 Additives and Preservatives 1.2.1 Preservatives 1.2.2 Colorants 1.2.3 Flavor Enhancers 1.3 Spices and Seasonings

	1.3.1 Herbs and Spices 1.3.2 Salt and Pepper 1.4 Baking Ingredients 1.4.1 Flours 1.4.2 Leavening Agents 1.5 Liquid Ingredients 1.5.1 Water 1.5.2 Milk and Juices
2. Packaging materials for food industries	2.1 Primary Packaging Materials 2.1.1 Plastic Packaging 2.1.2 Glass 2.1.3 Metal Packaging 2.1.4 Paper and Cardboard 2.1.5 Biodegradable and Compostable Packaging 2.1.6 Cellulose based packaging 2.2 Secondary Packaging Materials 2.2.1 Corrugated Cardboard Boxes 2.2.2 Shrink Wrap 2.2.3 Thermal packaging 2.3 Tertiary Packaging 2.3.1 Pallets 2.3.2 Stretch Film
3. Stock rotation methods	3.1 FIFO (First In, First Out) 3.2 FEFO (First Expired, First Out) 3.3 LIFO (Last In, First Out)
4. Best practices of stock rotation	4.1 Labeling and Date Tracking 4.1.1 Clear Labels 4.1.2 Color-Coded Systems 4.1.3 Regular Audits 4.2 Proper Storage Organization 4.2.1 Storage Layout 4.2.2 Separate Zones for Different Product Types 4.2.3 Relative Humidity and Temperature-Controlled Storage 4.3 Employee Training 4.3.1 Training on Rotation Policies 4.3.2 Regular Reviews 4.3.3 Responsibility Assignments 4.4 Stock Rotation Technology 4.4.1 Inventory Management Systems 4.4.2 Barcodes and QR Codes 4.4.3 Automated Alerts

5. Waste materials in food industry	5.1 Organic Waste 5.1.1 Food Scraps and Offcuts 5.1.2 Spoiled or Expired Food 5.1.3 Leftover Ingredients 5.1.4 Byproducts 5.2 Packaging Waste 5.2.1 Plastic Waste 5.2.2 Cardboard and Paper 5.2.3 Glass Waste 5.2.4 Metal Waste 5.2.5 Styrofoam 5.3 Liquid Waste 5.3.1 Waste water 5.3.2 Fat, Oil, and Grease (FOG) 5.3.3 Milk and Dairy Waste 5.3.4 Juice and Beverage Waste 5.4 Solid Waste 5.4.1 Bones and Animal Byproducts 5.4.2 Grains and Spent Ingredients 5.5 Chemical Waste 5.5.1 Cleaning Agents 5.5.2 Pesticides and Herbicides 5.5.3 Additives and Preservatives
6. Types of waste for segregation	6.1 Biodegradable Waste 6.2 Recyclable Waste 6.3 General Waste 6.4 Hazardous Waste
7. 5R	7.1 Refuse 7.2 Reduce 7.3 Reuse 7.4 Repurpose 7.5 Recycle
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: 1.1 identified raw materials for food industries 1.2 inspected raw materials 1.3 identified packing materials 1.4 supervised materials stock rotation 1.5 identified and managed waste materials

2. Underpinning knowledge	2.1 Raw materials for food industries 2.2 Raw materials condition 2.3 Date of manufacture and expiry of raw materials 2.4 Packaging materials for food industries 2.5 Materials stock rotation 2.6 Waste materials in food industry 2.7 Segregation of waste materials 2.8 Disposal of waste materials
3. Underpinning skills	3.1 Identifying the Raw Materials and Packaging Materials (RM&PM) 3.2 Supervising Materials Stock Rotation 3.3 Managing Waste Materials
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace (simulated or actual) 5.2 Raw materials for food industries 5.3 Packaging materials for food industries 5.4 Learning materials
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
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 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 BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	OU-AF-PSFI-04-L3-EN-V1: PERFORM ACTIVITIES OF PRODUCTION LINES
Unit Descriptor	This unit covers the skills, knowledge and attitude required to Perform activities of production line. It specifically includes Following OSH and Production Process, managing 3Ms, Executing Production Planning and achieving Key Performance Indicators (KPI), Perform Autonomous Maintenance and clean and maintain tools, equipment and workplace.
Nominal Hours	40 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Follow OSH	1.1 <u>Personal Protective Equipment (PPE)</u> is collected and worn as required 1.2 Safe work practices are followed as per workplace standard
2. Follow Production Process	2.1 <u>Food production methods</u> are interpreted 2.2 <u>Materials</u> are selected and collected as per standard requirements 2.3 Work/ process instructions are gathered and followed 2.4 Verification of measuring and monitoring devices are performed 2.5 Food is produced as per recipe
3. Manage 3Ms	3.1 <u>3Ms</u> are interpreted 3.2 Manpower are allocated and supervised as per workplace standard 3.3 Machines are maintained as per SOP 3.4 Materials are managed as per standard procedure
4. Execute Production Planning and Achieve Key Performance Indicators (KPI)	4.1 Production Planning and Key Performance Indicator (KPI) is collected and interpreted 4.2 Production is executed as per planning 4.3 KPI is achieved and reported to the concern authority
5. Perform Autonomous Maintenance	5.1 Autonomous Maintenance is recognized 5.2 <u>Key elements of autonomous maintenance</u> are interpreted 5.3 <u>Steps for implementation of autonomous maintenance</u> are interpreted 5.4 Cleaning, Lubrication, Inspection & Tightening (CLIT) is carried out as per requirements 5.5 Autonomous maintenance are performed as per workplace standard

6. Clean and maintain tools, equipment and workplace	6.1 Tools and equipment are cleaned and stored 6.2 Workplace is cleaned and maintained as per workplace standard
Range of Variables	
Variables	Range (may include but not limited to):
1. Personal Protective Equipment (PPE)	1.1 Mask 1.2 Hairnets 1.3 Helmet 1.4 Disposable Gloves 1.5 Aprons 1.6 Safety Goggles 1.7 Non-slip Footwear
2. Food production methods	2.1 Batch Production 2.2 Continuous Production 2.3
3. Materials	3.1 Raw materials 3.2 Packing materials
4. 3Ms	4.1 Man 4.2 Machine 4.3 Materials
5. Key elements of autonomous maintenance	5.1 Operator Involvement 5.2 Routine Inspections 5.3 Preventive Maintenance
6. Steps for implementation of autonomous maintenance	6.1 Initial Cleaning 6.2 Countermeasures to Eliminate Contamination 6.3 Development of Cleaning, Lubrication and Inspection Standards 6.4 Operator Training 6.5 Routine and Scheduled Maintenance
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: 1.1 followed OSH 1.2 followed production process 1.3 managed manpower, machine and materials 1.4 executed production planning 1.5 achieved KPI 1.6 performed autonomous maintenance
2. Underpinning knowledge	2.1 PPE 2.2 Safe work practices

	2.3 Food production methods 2.4 Work / process instructions 2.5 Process and product's quality 2.6 3M 2.7 Production Planning 2.8 KPI 2.9 Autonomous maintenance 2.10 Clean and maintain tools, equipment and workplace
3. Underpinning skills	3.1 Following OSH 3.2 Following production process 3.3 Managing manpower, machine and materials 3.4 Executing production planning 3.5 Achieving KPI 3.6 Performing autonomous maintenance
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace (simulated or actual) 5.2 Personal Protective Equipment (PPE) 5.3 Raw materials and packing materials 5.4 Machinery 5.5 Relevant materials for planning, maintenance and cleaning 5.6 Learning materials
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
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

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Unit Code and Title	OU-AF-PSFI-05-L3-EN-V1: CONTROL QUALITY OF PROCESS AND PRODUCTS
Unit Descriptor	This unit covers the skills, knowledge and attitude required to Control Quality of Process and Products. It specifically includes identifying process and quality parameters, reducing nonconformity and responding to traceability.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify Process and Quality Parameters	1.1 <u>Process parameters</u> and <u>quality parameters</u> are interpreted 1.2 Online inspection is carried out as per workplace standard 1.3 Quality is maintained as per product's specification
2. Reduce Nonconformity	2.1 <u>Non conformities</u> in food production are interpreted 2.2 First Time Quality (FTQ) is recognized 2.3 Root Cause Analysis (RCA) is performed 2.4 Corrective / Preventive Action is taken as per workplace standard 2.5 Defects reduction techniques are applied
3. Respond to Traceability	3.1 Traceability is interpreted 3.2 <u>Key elements of traceability</u> are identified 3.3 <u>Importance of traceability in food industries</u> are recognized 3.4 Traceability is maintained as per workplace standard
Range of Variables	
Variables	Range (may include but not limited to):
1. Process parameters	1.1 Temperature Control 1.2 Time Control 1.3 pH Levels 1.4 Water Activity 1.5 Pressure Control 1.6 Flow Rate and Mixing Speed 1.7 Humidity Control
2. Quality parameters	2.1 Physical parameter 2.2 Chemical parameters
3. Non conformities	3.1 Safety Non-Conformities 3.3 Quality Non-Conformities 3.4 Process and Production Non-Conformities 3.5 Packaging Non-Conformities

4. Key elements of traceability	4.1 Tracking 4.2 Tracing 4.3 Lot/Batch Identification 4.4 Record Keeping
5. Importance of traceability in food industries	5.1 Food Safety 5.2 Regulatory Compliance 5.3 Quality Assurance 5.4 Consumer Trust and Transparency 5.5 Preventing Food Fraud 5.6 Supply Chain Efficiency
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: 1.1 identified process and quality parameters 1.2 carried out online inspection 1.3 reduce nonconformity 1.4 performed RCA 1.5 applied defects reduction techniques 1.6 responded to traceability
2. Underpinning knowledge	2.1 Process parameters 2.2 Quality parameters 2.3 Online inspection 2.4 Nonconformity 2.5 First time quality 2.6 Root Cause Analysis 2.7 Corrective / Preventive Action 2.8 Defects reduction techniques 2.9 Traceability
3. Underpinning skills	3.1 Identifying Process and Quality Parameters 3.2 Carrying out online inspection 3.3 Performing RCA 3.4 Applying defects reduction techniques 3.5 Reducing Nonconformity 3.6 Responding to Traceability
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace (simulated or actual)

	5.2 Relevant materials for quality control 5.3 Materials for online inspection 5.4 Learning materials
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
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 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 BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Development of Competency Standard

The Competency Standards for National Skills Certificate in Production Supervision in Food Industry Occupation, Level- 3 is developed by Building Youth Employability Through Skills (BYETS) project (funded by the Embassy of the Kingdom of Netherlands) of Swisscontact in October 2024.

List of Members

Sl No	Name and Address	Position in the committee
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Validation of Competency Standard

The Competency Standards for National Skills Certificate in Production Supervision in Food Industry, Level- 3 is validated by NSDA on 17 November 2024.

List of Members

Sl No	Name and Address	Position in the committee	Signature
1.	Md. Shafiqur Rahman Bhuiyan Chairman, Agro Food ISC, Dhaka Mobile: 01711228747, Email: chairman.ceafs@gmail.com	Chairperson	
2.	Md. Nurul Islam , Chief Consultant- Development Projects, Bangladesh Agro Processors' Association (BAPA), Mohammadpur, Dhaka Mobile: 01715026752 Email: bapa.seip.cc@gmail.com	Member	
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9.	Syed Azharul Haque Competency Standard Expert, National Skills Development Authority (NSDA) Cell: +880 1711047815 Email: azharulhaque2008@gmail.com	Member	

Workshop Minutes

Government of the People's Republic of Bangladesh

Chief advisor's Office

National Skills Development Authority

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Minutes of the Competency Standard Validation Workshop on “Production Supervision in Food Industry” Occupation.

Chairman	: Mr. Md. Shafiqur Rahman Bhuiyan, Chairman, AFISC
Date	: 17 November, 2024
Time	: 9:00 am - 5:00 pm
Place	: ISC Conference Room, NSDA, Biniyog Bhaban, Agargaon, Dhaka-1207

The Chairman welcomed all those present and started the work of the workshop. During the day-long workshop, the competency standard of Production Supervision in Food Industry was reviewed and finalized in detail. The activities related to the finalized standard through validation workshop are presented below:

Serial No.	Content of validation	Whether it was appropriate		What actions have been taken if not appropriate?
		Yes	No.	
1	Name and level of occupation	Yes		The name of the occupation has been unchanged as ‘Production Supervision in Food Industry’. Level of this CS was considered Level 3.
2	Nominal Hour	Yes		360 hours
3	Unit of Competency	Yes		Name of the units were validated without any change.
4	Element	Yes		Name of the Elements were validated without any change.
5	Performance Criteria		No.	Relevant performance criteria were updated for changed element and some other elements.
3	Variables		No.	Relevant variables were added, changed and updated.
3	Critical Aspect of Competence		No.	Appropriate changes have been made in the critical aspect of competency as per the change of element and performance criteria.
3	Underpinning knowledge		No.	Necessary addition, changings and refinements have been made.
9	Underpinning Skills		No.	Necessary addition, changes and refinements have been made.
10	Attitude	Yes		
11	Resources	Yes		
12	Assessment methods	Yes		
13	Others			The nominal hours of the units of competencies have been readjusted for content consideration.

				Overall, the occupation has been included in Level-3 according to NSQF (BNQF 1-6).
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Through the above activities, the Competency Standard has been finalized and validated as
“Production Supervision in Food Industry” Level-3.

Chairman
Committee on Standard and
Curriculum Validation,
Chairman – AF ISC