

# QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR FOOD PROCESSING

## What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding



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## Introduction

### Qualifications Pack – Plant Biscuit Production Specialist

**SECTOR:** FOOD PROCESSING

**SUB-SECTOR:** BREAD AND BAKERY

**OCCUPATION:** PROCESSING

**REFERENCE ID:** FIC/Q5003

**ALIGNED TO:** NCO-2004/NIL

**Brief Job Description:** A Plant Biscuit Production Specialist produces biscuits in industrial units as per defined SOPs in synchronisation with rest of the plant/ unit by weighing, mixing, kneading, rolling/sheeting, cutting, moulding, baking, cooling, etc. either manually or using machineries following the defined SOPs of the plant/ unit.

**Personal Attributes:** A Plant Biscuit Production Specialist must have the ability to plan, organize, prioritize, calculate and handle pressure. S/he must possess reading, writing and communication skills. In addition, the individual must have stamina to be able to stand for long hours, have personal and professional hygiene and an understanding of food safety standards and requirements.

<b>Qualifications Pack Code</b>	<b>FIC/Q5003</b>		
<b>Job Role</b>	<b>Plant Biscuit Production Specialist</b>		
<b>Credits (NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	<b>Food Processing</b>	<b>Drafted on</b>	<b>23/06/15</b>
<b>Sub-sector</b>	<b>Bread and bakery</b>	<b>Last reviewed on</b>	<b>04/09/18</b>
<b>Occupation</b>	<b>Processing</b>	<b>Next review date</b>	<b>30/06/19</b>

<b>Job Role</b>	<b>Plant Biscuit Production Specialist</b>
<b>Role Description</b>	A Plant Biscuit Production Specialist produces biscuits in industrial units as per defined SOPs in synchronisation with rest of the plant/ unit.
<b>NSQF level</b>	4
<b>Minimum Educational Qualifications</b>	Preferably Class 12
<b>Maximum Educational Qualifications</b>	Not Applicable
<b>Training</b> (Suggested but not mandatory)	<ol style="list-style-type: none"> <li>1. Baking process for all baked products</li> <li>2. Operating different types of baking machines and equipments</li> <li>3. GMP</li> <li>4. HACCP</li> <li>5. QMS</li> <li>6. Computer basics and ERP</li> <li>7. Training in food Safety Standards and Regulations (as per FSSAI) (Mandatory)</li> </ol>
<b>Experience</b>	2-3 years experience in a bakery unit
<b>Applicable National Occupational Standards (NOS)</b>	<p><b>Compulsory:</b></p> <ol style="list-style-type: none"> <li>1. <a href="#">FIC/N5009 Prepare and maintain work area and process machineries for producing biscuits in industrial units</a></li> <li>2. <a href="#">FIC/N5010 Prepare for production of biscuits in industrial units</a></li> <li>3. <a href="#">FIC/N5011 Produce biscuits in industrial units</a></li> <li>4. <a href="#">FIC/N5012 Complete documentation and record keeping related to production of biscuits in industrial units</a></li> <li>5. <a href="#">FIC/N9001 Food safety, hygiene and sanitation for processing food products</a></li> </ol>
<b>Performance Criteria</b>	As described in the relevant OS units

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through analysis and form the basis of OS.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
OS	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard , which is denoted by an 'N'
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.

Acronyms

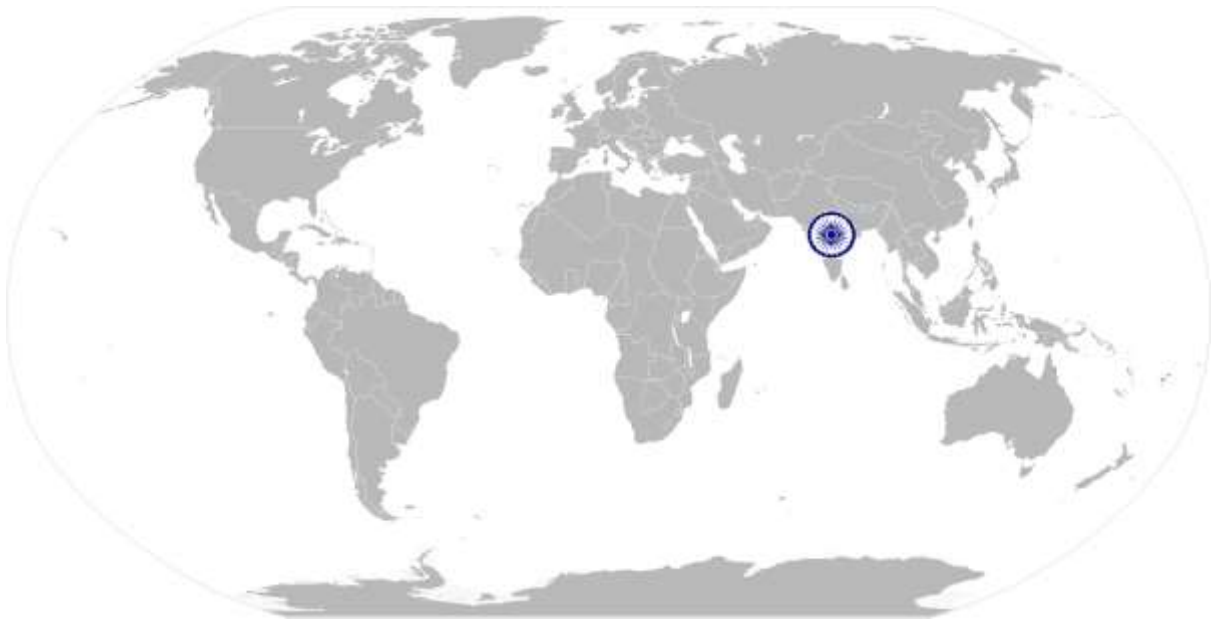
Keywords /Terms	Description
CIP	Clean In Place
COP	Clean Out Of Place
ERP	Enterprise Resource Planning
FIFO	First In First Out
FEFO	First Expiry First Out
FSSAI	Food Safety and Standards Authority of India
GMP	Good Manufacturing Practices
GHP	Good Hygiene Practices
HACCP	Hazard Analysis and Critical Control Point
NOS	National Occupational Standard
NSQF	National Skill Qualification Framework
NVEQF	National Vocational Educational Qualification Framework
NVQF	National Vocational Qualification Framework
OS	Occupational Standard
PC	Performance Criteria
QP	Qualification Pack
SSC	Sector Skill Council
SOP	Standard Operating Procedure
QMS	Quality Management System

FIC/N5009

Prepare and maintain work area and process machineries for  
producing bisuits in industrial units

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# National Occupational Standard



## **Overview**

This OS unit is about preparing work area for hygiene and safety, and ensuring performance, efficiency and maintenance of process machineries and tools for producing biscuits in industrial units, as per the specifications and standards of the organization.

FIC/N5009

**Prepare and maintain work area and process machineries for producing biscuits in industrial units**

National Occupational Standard

<b>Unit Code</b>	FIC/N5009
<b>Unit Title(Task)</b>	<b>Prepare and maintain work area and process machineries for producing biscuits in industrial units</b>
<b>Description</b>	Preparing work area for hygiene and safety, and ensuring performance, efficiency and maintenance of process machineries and tools for producing biscuits in industrial units as per the specifications and standards of the organization.
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>• Prepare and maintain work area ( for production of biscuits in industrial units)</li> <li>• Prepare and maintain process machineries and tools ( for production of biscuits in industrial units)</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Prepare and maintain work area ( for production of biscuits in industrial units)</b>	PC1. clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests PC2. ensure that the work area is safe and hygienic for food processing PC3. dispose waste materials as per defined SOP's and industry requirements
<b>Prepare and maintain process machineries and tools ( for production of biscuits in industrial units)</b>	PC4. check the working and performance of all machineries and tools used for production such as proof box, oven, packaging machines, etc. PC5. clean the machineries and tools used with approved sanitizers following specifications and sops PC6. place the necessary tools required for the process PC7. attend minor repairs/ faults of machines, if required
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the organization and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. organization standards, process standards and procedures followed in the organization</li> <li>KA2. types of products produced by the organization</li> <li>KA3. code of business conduct</li> <li>KA4. dress code to be followed</li> <li>KA5. job responsibilities/duties and standard operating procedures</li> <li>KA6. internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution</li> <li>KA7. provision of wages, working hours as per organization policy</li> <li>KA8. food safety and hygiene standards followed</li> </ul>
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KB1. types of chemicals, materials and equipment required for cleaning and maintenance</li> <li>KB2. cleaning process to disinfect equipment/ tools</li> <li>KB3. supplier/manufacturers instructions related to cleaning and maintenance</li> <li>KB4. knowledge on Food Safety Standards and Regulations (as per FSSAI)</li> <li>KB5. knowledge on legal regulations pertaining to work place such as health and safety, recommended dosage for use of sanitizers, control of substances hazardous to health, handling/storage/ disposal/ cautions for use of sanitizers</li> </ul>

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**Prepare and maintain work area and process machineries for producing bisuits in industrial units**

	and disinfectants, fire precautions/ occurrences, hygiene practice, disposal of waste, environmental protection, etc.
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/ individual on the job needs to know and understand how to: SA1. note the information communicated by the supervisor SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for ERP or as required by the organization
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipment operation and process requirement SA10. read internal information documents sent by internal teams
	<b>Oral Communication (Listening and Speaking skills)</b>
The user/individual on the job needs to know and understand how to : SA11. discuss task lists, schedules and activities with the supervisor SA12. effectively communicate with the team members SA13. question the supervisor in order to understand the nature of the problem and to clarify queries SA14. attentively listen and comprehend the information given by the speaker SA15. communicate clearly with the supervisor and cross department team on the issues faced	
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to: SB1. analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue SB2. handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
	<b>Plan and Organize</b>
The user/individual on the job needs to know and understand how to: SB3. plan and organize the work order and jobs received from the supervisor SB4. organize raw materials and packaging materials required for all products following the instruction provided by the supervisor SB5. plan and prioritize the work based on the instructions received from the supervisor SB6. plan to utilise time and equipment's effectively SB7. organize all process/ equipment manuals so as to access information easily SB8. support the supervisor in scheduling tasks for helper(s)	



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**Prepare and maintain work area and process machineries for producing bisuits in industrial units**

	<b>Customer Centricity</b>
	SB9. understand customer requirements and their priority and respond as per their needs
	<b>Problem Solving</b>
	The user/individual on the job needs to know and understand how to: SB10. support supervisor in solving problems by detailing out problems SB11. discuss the possible solutions with the supervisor for problem solving
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB12. apply domain information about maintenance processes and technical knowledge about tools and equipment
<b>Critical Thinking</b>	
The user/individual on the job needs to know and understand how to: SB13. use common sense and make judgments on day to day basis SB14. use reasoning skills to identify and resolve basic problems SB15. use intuition to detect any potential problems which could arise during operations SB16. use acquired knowledge of the process for identifying and handling issues	





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Prepare and maintain work area and process machineries for  
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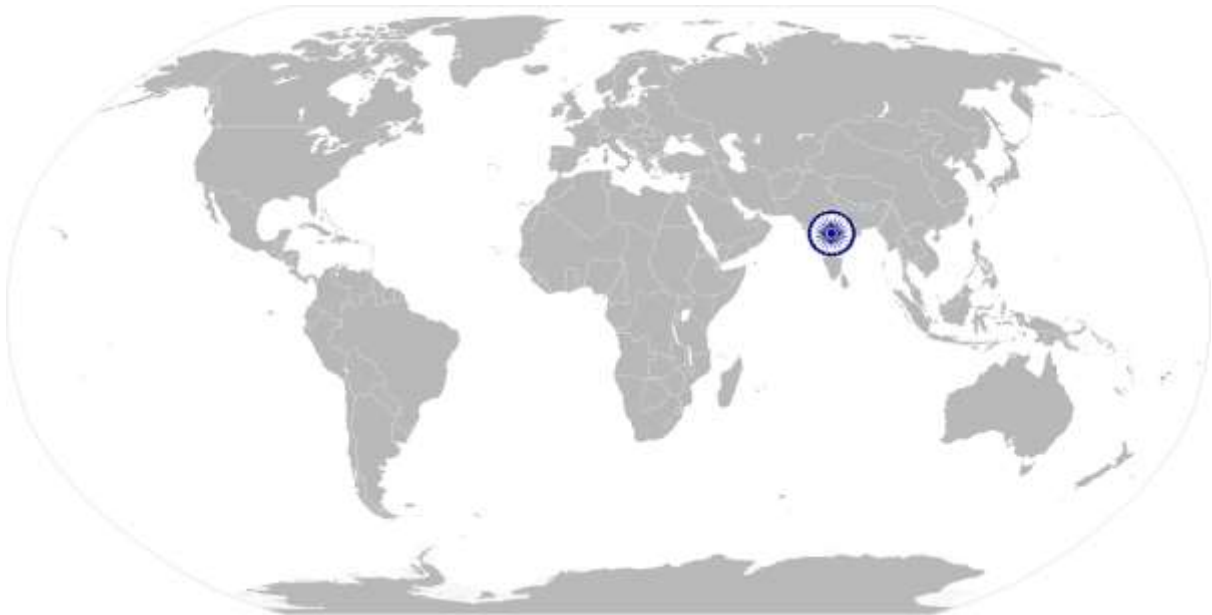
## NOS Version Control

NOS Code	FIC/N5009		
Credits (NSQF)	TBD	Version number	1.0
Industry	Food Processing	Drafted on	23/06/15
Industry Sub-sector	Bread and bakery	Last reviewed on	04/09/18
Occupation	Processing	Next review date	30/06/19

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# National Occupational Standard



## Overview

This OS unit is about preparation for production of biscuits in industrial units, through planning of raw material and ingredients, machinery utilization and manpower requirement.

FIC/N5010

Prepare for production of biscuits in industrial units

National Occupational Standard

<b>Unit Code</b>	<b>FIC/N5010</b>
<b>Unit Title(Task)</b>	<b>Prepare for production of biscuits in industrial units</b>
<b>Description</b>	This unit is about preparation for production of biscuits in industrial units through planning of raw material and ingredients, machinery utilization and manpower requirement.
<b>Scope</b>	The scope of this role will include: <ul style="list-style-type: none"> <li>Plan for production ( for biscuits in industrial units)</li> <li>Plan equipment utilization and manpower ( for production of biscuits in industrial units)</li> <li>Organize and check equipments and raw material for carrying out production ( for biscuits in industrial units)</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Plan for production( for biscuits in industrial units)</b>	<p>PC1. read and understand the production order from the supervisor</p> <p>PC2. check the availability of raw materials and ingredients such as flour, sugar, shortenings, additives, preservatives, etc., packaging materials, working of machineries and availability of manpower</p> <p>PC3. calculate total weight of dough required for order quantity (considering process loss)</p> <p>PC4. plan production sequence by:</p> <ul style="list-style-type: none"> <li>grouping similar type of products (hard and soft biscuits)</li> <li>grouping similar type of dough (hard and soft dough)</li> <li>grouping products that require similar process and process parameters</li> <li>grouping products that require same processing machineries</li> <li>planning maximum capacity utilization of machineries</li> <li>avoiding clean-in-place (CIP) after each type of product</li> <li>planning efficient utilization of resources/manpower</li> <li>prioritizing urgent orders</li> </ul>
<b>Plan equipment utilization and manpower ( for production of biscuits in industrial units)</b>	<p>PC5. ensure the working and performance of each equipment required for the process</p> <p>PC6. calculate the process time for each batch for effective utilization of machineries</p> <p>PC7. plan batch size considering full capacity utilization of machineries</p> <p>PC8. allot responsibilities/ work to the assistants and helpers</p>
<b>Organize and check equipments and raw material for carrying out production ( for biscuits in industrial units)</b>	<p>PC9. refer to the process chart/ product flow chart/formulation chart for product(s) produced</p> <p>PC10. weigh the raw materials and ingredients required for the batch</p> <p>PC11. check the conformance of raw material quality to organization standards by verifying the quality analysis report from the supplier/ internal lab and by checking the physical parameters like appearance, colour, aroma, texture etc.</p>

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Prepare for production of biscuits in industrial units

	<p>PC12. organize the equipments as per the process requirement</p> <p>PC13. change dies, moulds, etc. and other parts of machineries to prepare for production</p> <p>PC14. start machine and check the working and performance of the machine</p> <p>PC15. make minor adjustments or repairs (if required)</p> <p>PC16. keep the tools accessible to attend repairs/faults in case of breakdown</p>
<b>Knowledge and Understanding (K)</b>	
<b>B. Organizational Context</b> (Knowledge of the organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. organization standards, process standards and procedures followed in the organization</p> <p>KA2. types of products produced by the organization</p> <p>KA3. code of business conduct</p> <p>KA4. dress code to be followed</p> <p>KA5. job responsibilities/duties and standard operating procedures</p> <p>KA6. internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution</p> <p>KA7. provision of wages, working hours as per organization policy</p> <p>KA8. food safety and hygiene standards followed</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. types of raw materials, ingredients used in bakery</p> <p>KB2. types of raw materials, ingredients, additives, etc. used for production of various types of biscuits</p> <p>KB3. types of dough for making biscuits</p> <p>KB4. methods for preparing various types of dough for biscuit making</p> <p>KB5. process and process parameters for baking various types of biscuits</p> <p>KB6. varieties of biscuits obtained from each type of dough</p> <p>KB7. types of machineries used for making biscuits</p> <p>KB8. types of machineries used in the baking units and machineries used in the organization</p> <p>KB9. maintenance of baking equipments</p> <p>KB10. supplier/mannufacturer's instructions for all baking machineries and equipments</p> <p>KB11. basic mathematics to calculate raw material required for obtaining specified quantity of finished product</p> <p>KB12. quality parameters and quality assessment based on physical parameters</p> <p>KB13. food safety and hygiene</p> <p>KB14. good manufacturing practice (GMP)</p> <p>KB15. hazard analysis and critical control point (HACCP)</p>
<b>Skills (S)</b>	
<b>Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. note the information communicated by the supervisor</p> <p>SA2. note the raw materials used for production and the finished products produced</p> <p>SA3. note the readings of the process parameters and provide necessary information to fill the process chart</p>

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**Prepare for production of biscuits in industrial units**

	SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for ERP or as required by the organization
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipment operation and process requirement SA10. read internal information documents sent by internal teams
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to : SA11. discuss task lists, schedules and activities with the supervisor SA12. effectively communicate with the team members SA13. question the supervisor in order to understand the nature of the problem and to clarify queries SA14. attentively listen and comprehend the information given by the speaker SA15. communicate clearly with the supervisor and cross department team on the issues faced
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to: SB1. analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue SB2. handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
	<b>Plan and Organize</b>
	The user/individual on the job needs to know and understand how to: SB3. plan and organize the work order and jobs received from the supervisor SB4. organize raw materials and packaging materials required for all products following the instruction provided by the supervisor SB5. plan and prioritize the work based on the instructions received from the supervisor SB6. plan to utilise time and equipment's effectively SB7. organize all process/ equipment manuals so as to access information easily SB8. support the supervisor in scheduling tasks for helper(s)
	<b>Customer Centricity</b>
	SB9. understand customer requirements and their priority and respond as per their needs
	<b>Problem Solving</b>
	The user/individual on the job needs to know and understand how to: SB10. support supervisor in solving problems by detailing out problems SB11. discuss the possible solutions with the supervisor for problem solving
<b>Analytical Thinking</b>	
The user/individual on the job needs to know and understand how to:	

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**Prepare for production of biscuits in industrial units**

	SB12. apply domain information about maintenance processes and technical knowledge about tools and equipment
	<b>Critical Thinking</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB13. use common sense and make judgments on day to day basis</p> <p>SB14. use reasoning skills to identify and resolve basic problems</p> <p>SB15. use intuition to detect any potential problems which could arise during operations</p> <p>SB16. use acquired knowledge of the process for identifying and handling issues</p>



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Prepare for production of biscuits in industrial units

## NOS Version Control

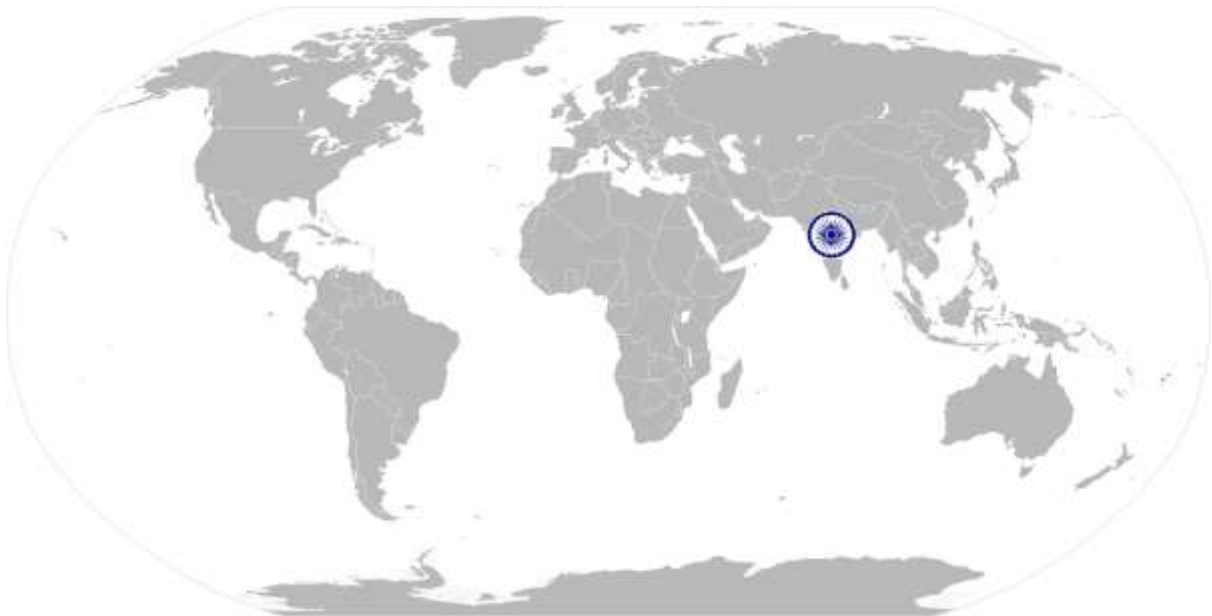
NOS Code	FIC/N5010		
Credits (NSQF)	TBD	Version number	1.0
Industry	Food Processing	Drafted on	23/06/15
Industry Sub-sector	Bread and bakery	Last reviewed on	04/09/18
Occupation	Processing	Next review date	30/06/19

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# National Occupational Standard



## Overview

This OS unit is about producing biscuits in industrial units as per the defined SOPs of the organization.

FIC/N5011

Produce biscuits in industrial units

National Occupational Standard

<b>Unit Code</b>	FIC/N5011
<b>Unit Title(Task)</b>	Produce biscuits in industrial units
<b>Description</b>	This OS unit is about producing biscuits in industrial units as per the defined SOPs of the organization.
<b>Scope</b>	<p>The scope of this role will include:</p> <ul style="list-style-type: none"> <li>• Organize raw materials</li> <li>• Mix Ingredients</li> <li>• Laminate and mould dough</li> <li>• Bake biscuits</li> <li>• Prepare centre filled/sandwich biscuits</li> <li>• Post process cleaning and regular maintenance of equipments</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Organize raw materials</b>	<p>PC1. refer to the work order and formulation and organize all the ingredients required for the order</p> <p>PC2. check the quality of each ingredient through physical parameters such as appearance, colour, odour, texture, etc. for its conformance to organization standards</p> <p>PC3. weigh and measure all ingredients such as flour, fat, water, sugar, additives, flavours, spices, etc. required for product/batch and sift the ingredients manually (in manually operated unit)</p> <p>PC4. set and control metering devices that weigh, measure, sift, and convey each approved ingredients into the mixing machine for each ingredients such as flour, fat, water, sugar, additives, approved flavours and colours spices etc required for the product (in mechanized unit)</p> <p>PC5. check the scale indicators to confirm if specified amount of ingredients have been added</p>
<b>Mix Ingredients</b>	<p>PC6. mix all the ingredients manually to desired consistency</p> <p>PC7. transfer all the ingredients together or sequentially into the mixer depending on the method followed by the organization</p> <p>PC8. set the mixer speed, time and temperature depending on the mixing processes followed by the organization and start the mixer to mix and knead the ingredients to make hard/ soft dough for biscuits</p> <p>PC9. control the mixing time and mixing temperature which are critical for making hard/soft dough for biscuits</p> <p>PC10. check the dough consistency periodically until achieving dough of desired consistency</p> <p>PC11. ferment the dough, if required</p>
<b>Laminate and mould dough</b>	<p>PC12. feed the hard dough into the layering or forming machines or dough feeder as required</p> <p>PC13. ensure the correct forming and moulding of the dough</p> <p>PC14. set the controls of each sheeting roller of the laminator machine to produce continuous sheet of hard dough as per specifications and standards (for hard dough)</p> <p>PC15. set the required moulding roller/ cutter/ die</p>

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Produce biscuits in industrial units

	<p>PC16. set the controls of rotary cutter machine to cut the sheet of hard dough to desired size, shape and design as per specifications and standards of the organization</p> <p>PC17. set the controls of the conveyors to separate the cut hard dough and control scrap return</p> <p>PC18. control operation of the sprinkler</p> <p>PC19. set the controls of rotary cutter machine and start machine to mould soft dough to desired size, shape, weight and thickness as per specifications and standards of the organization (for soft dough)</p> <p>PC20. ensure correct transfer of dough pieces to the oven band</p>
<p><b>Bake biscuits</b></p>	<p>PC21. pre-heat the oven and set the oven parameters such as baking temperature and baking time (batch process), load the filled pans /moulds in the oven and bake the dough monitoring oven parameters during baking process</p> <p>PC22. set and maintain the speed of the panning conveyor to control the shaped/moulded dough entering the tunnel oven (continuous process)</p> <p>PC23. set the oven parameters such as temperature, time, conveyor speed, etc. and monitor the oven parameters during baking process</p> <p>PC24. observe baking of biscuits through the observation window of the tunnel oven</p> <p>PC25. observe quality of baked biscuit coming out of oven through parameters such as color, aroma, texture, etc. to detect over baking /under baking and control oven parameters to achieve finished product of uniform quality</p> <p>PC26. remove non-conforming products from the conveyor</p> <p>PC27. check the quality of the finished products through physical parameters such as colour, size, appearance, texture, aroma, taste, etc. and compare against standard</p> <p>PC28. set, control and maintain speed of the cooling conveyor to cool the biscuit</p>
<p><b>Prepare centre filled/sandwich biscuits</b></p>	<p>PC29. weigh the ingredients such as fat, sugar, chocolate, flavour, etc. required for preparing the cream/centre filling material for soft dough biscuits</p> <p>PC30. transfer the ingredients into the mixer, set and adjust controls and start mixer to mix cream ingredients</p> <p>PC31. transfer cream into the cream feed and set controls of metering devices of cream feed on the sandwiching machine</p> <p>PC32. set controls of the sandwiching machine to fill measured quantity of cream on soft dough biscuit, position and place another soft dough biscuit over cream filled biscuit, press the biscuits and maintain the thickness of the cream biscuit</p> <p>PC33. check the quality of the finished products through physical parameters such as colour, size, appearance, texture, aroma, taste etc. and compare against standard</p> <p>PC34. remove non-conforming products from the conveyor</p> <p>PC35. report discrepancies/concerns in each stage of production to department supervisor for immediate action</p>

FIC/N5011

Produce biscuits in industrial units

<p><b>Post process cleaning and regular maintenance of equipments</b></p>	<p>PC36. clean the work area, machineries, equipment and tools using recommended cleaning agents and sanitizers PC37. attend minor repairs/faults of all machines (if any) PC38. ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>C. Organizational Context</b> (Knowledge of the organization and its processes)</p>	<p>The user/individual on the job needs to know and understand: KA1. organization standards, process standards and procedures followed in the organization KA2. types of products produced by the organization KA3. code of business conduct KA4. dress code to be followed KA5. job responsibilities/duties and standard operating procedures KA6. internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution KA7. provision of wages, working hours as per organization policy KA8. food safety and hygiene standards followed</p>
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand: KB1. types of raw materials, ingredients used in bakery KB2. types of raw materials, ingredients, additives etc used for production of various types of biscuits KB3. types of dough in bakery for preparing various types of biscuits KB4. methods for preparing various types of dough KB5. process parameters to prepare various types of dough KB6. types of ingredients required for preparing different type of dough KB7. types of biscuit products obtained from each type of dough KB8. process and process parameters for preparing various types of biscuits KB9. types of machineries used for making dough and in the baking process KB10. types of machineries used in the baking units and machineries used in the organization KB11. maintenance of baking equipments KB12. supplier/manufacture's instructions for all baking machineries and equipments KB13. basic mathematics to calculate raw material required for obtaining specified quantity of finished product KB14. quality parameters and quality assessment based on physical parameters KB15. food safety and hygiene KB16. good manufacturing practice (gmp) KB17. hazard analysis and critical control point (haccp)</p>
<p><b>Skills (S)</b></p>	
<p><b>B. Core Skills/ Generic Skills</b></p>	<p><b>Writing Skills</b> The user/ individual on the job needs to know and understand how to: SA1. note the information communicated by the supervisor SA2. note the raw materials used for production and the finished products produced</p>

FIC/N5011

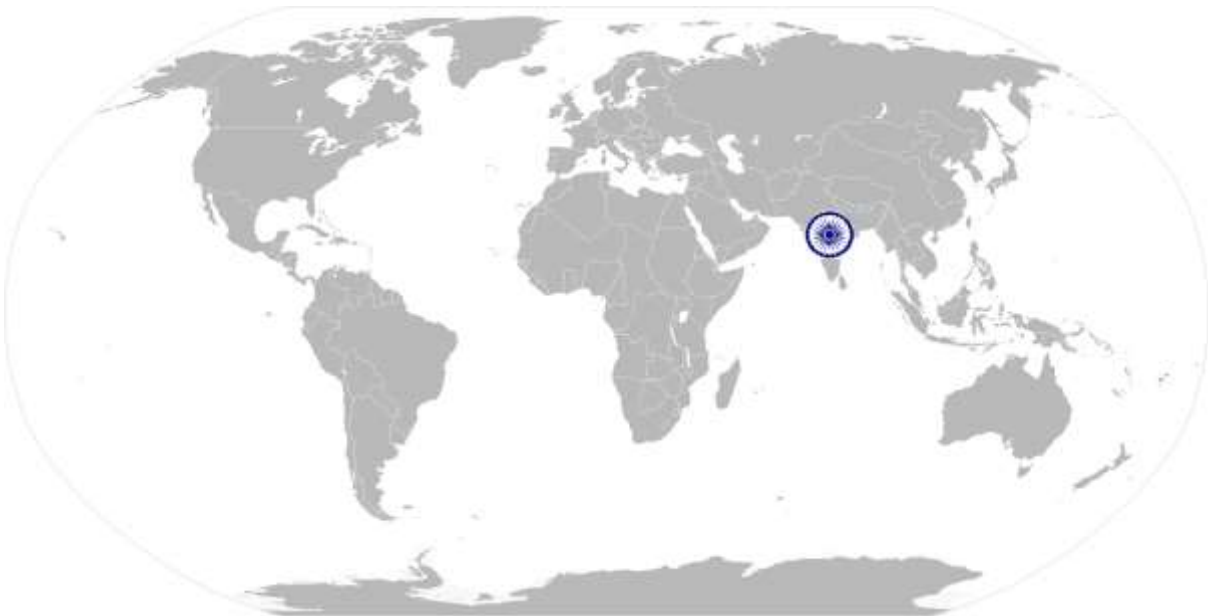
**Produce biscuits in industrial units**

	SA3. note the readings of the process parameters and provide necessary information to fill the process chart
	SA4. note down observations (if any) related to the process
	SA5. write information documents to internal departments/ internal teams
	SA6. note down the data for ERP or as required by the organization
	<b>Reading Skills</b>
The user/individual on the job needs to know and understand how to:	
SA7. read and interpret the process required for producing various types of products	
SA8. read and interpret and process flowchart for all products produced	
SA9. read equipment manuals and process documents to understand the equipment operation and process requirement	
SA10. read internal information documents sent by internal teams	
<b>Oral Communication (Listening and Speaking skills)</b>	
The user/individual on the job needs to know and understand how to :	
SA11. discuss task lists, schedules and activities with the supervisor	
SA12. effectively communicate with the team members	
SA13. question the supervisor in order to understand the nature of the problem and to clarify queries	
SA14. attentively listen and comprehend the information given by the speaker	
SA15. communicate clearly with the supervisor and cross department team on the issues faced	
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to:
	SB1. analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue
	SB2. handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)
	<b>Plan and Organize</b>
	The user/individual on the job needs to know and understand how to:
	SB3. plan and organize the work order and jobs received from the supervisor
	SB4. organize raw materials and packaging materials required for all products following the instruction provided by the supervisor
	SB5. plan and prioritize the work based on the instructions received from the supervisor
	SB6. plan to utilise time and equipment's effectively
	SB7. organize all process/ equipment manuals so as to access information easily
	SB8. support the supervisor in scheduling tasks for helper(s)
	<b>Customer Centricity</b>
	The user/individual on the job needs to know and understand how to:
	SB9. understand customer requirements and their priority and respond as per their needs
	<b>Problem Solving</b>
	The user/individual on the job needs to know and understand how to:
	SB10. support supervisor in solving problems by detailing out problems
	SB11. discuss the possible solutions with the supervisor for problem solving
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to:

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Produce biscuits in industrial units

	SB12. apply domain information about maintenance processes and technical knowledge about tools and equipment
	<b>Critical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB13. use common sense and make judgments on day to day basis SB14. use reasoning skills to identify and resolve basic problems SB15. use intuition to detect any potential problems which could arise during operations SB16. use acquired knowledge of the process for identifying and handling issues





FIC/N5011

Produce biscuits in industrial units

## NOS Version Control

NOS Code	FIC/N5011		
Credits (NSQF)	TBD	Version number	1.0
Industry	Food Processing	Drafted on	23/06/15
Industry Sub-sector	Bread and bakery	Last reviewed on	04/09/18
Occupation	Processing	Next review date	30/06/19

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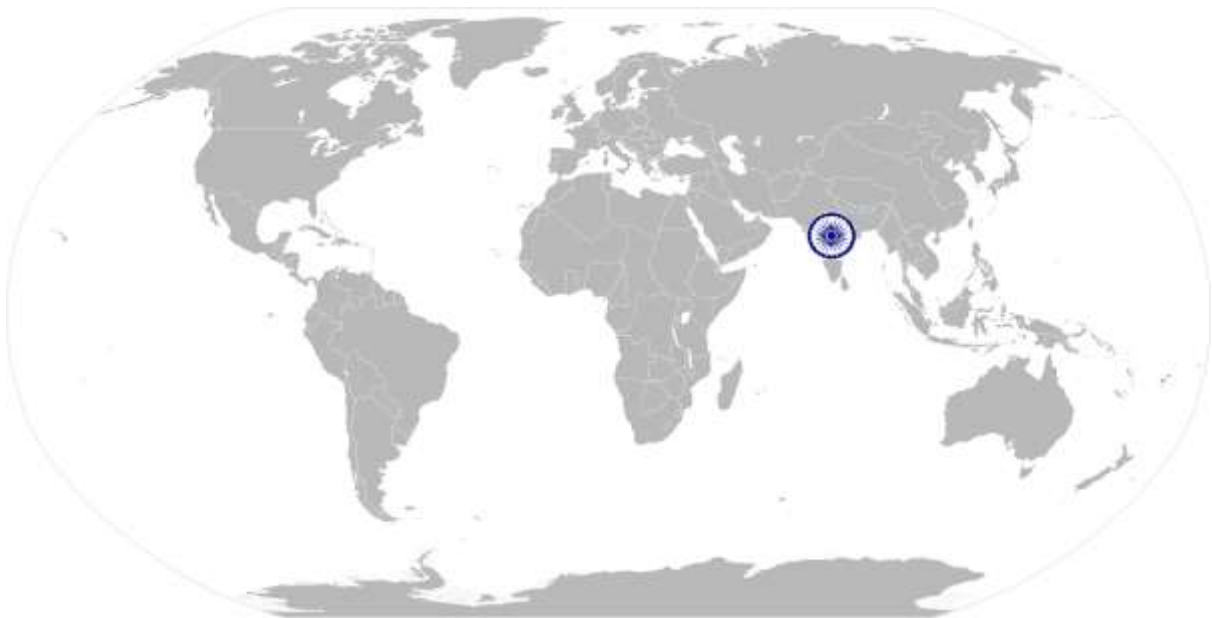


FIC/N5012

Complete documentation and record keeping related to production  
of biscuits in industrial units

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# National Occupational Standard



## Overview

This OS unit is about documenting and maintaining records of raw materials, process and finished products related to production of biscuits in industrial units.

FIC/N5012

**Complete documentation and record keeping related to production of biscuits in industrial units**

National Occupational Standard

<b>Unit Code</b>	<b>FIC/N5012</b>
<b>Unit Title(Task)</b>	<b>Complete documentation and record keeping related to production of biscuits in industrial units</b>
<b>Description</b>	This OS unit is about documenting and maintaining records of raw materials, process and finished products related to production of biscuits in industrial units.
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Document and maintain record of raw material ( for production of biscuits in industrial units)</li> <li>• Document and maintain record of production schedule and process parameters ( for production of biscuits in industrial units)</li> <li>• Document and maintain record of finished products ( for production of biscuits in industrial units)</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Document and maintain record of raw material ( for production of biscuits in industrial units)</b>	<p>PC1. document and maintain record of all raw materials used for making biscuits such as name of raw materials, supplier details, batch number, receiving date/ date of manufacture, expiry date, supplier quality document, quality parameters of all raw materials, internal quality analysis report, etc. as per organizational standards</p> <p>PC2. maintain record of observations (if any) related to raw materials</p> <p>PC3. load the raw materials details in ERP for future reference</p> <p>PC4. verify the documents and track from finished product to raw materials, in case of quality concerns and during quality management system audit</p>
<b>Document and maintain record of production schedule and process parameters ( for production of biscuits in industrial units)</b>	<p>PC5. document and maintain record of production details such as the product produced, production sequence, equipments and machinery details, efficiency and capacity utilization of equipment</p> <p>PC6. document and maintain record of process details such as type of raw material used, type of dough, process parameters ( temperature, time, etc.) for entire process in process chart or production log for all products produced</p> <p>PC7. document and maintain record of batch size, raw material used, yield after each stage of process, wastage, energy utilization and final products produced</p> <p>PC8. maintain record of observations (if any) or deviations related to production and process parameters</p> <p>PC9. load the production plan and process details in ERP for future reference</p> <p>PC10. verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits</p>
<b>Document and maintain record of finished products ( for production of biscuits in industrial units)</b>	<p>PC11. document and maintain record of finished products details such as type of products produced, quantity produced per batch, quantity produced in each type of product, batch number, time of packing, date of manufacture, date of expiry, other label details, primary ,secondary and tertiary packaging materials for all finished products, storage conditions, etc. as per organizational standards</p>

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**Complete documentation and record keeping related to production  
of biscuits in industrial units**

	<p>PC12. maintain record of observations or deviations (if any) related to finished products</p> <p>PC13. load the details of finished products in ERP for future reference</p> <p>PC14. verify the documents and track from finished product to raw materials, in case of quality concerns and for quality management system audits</p>
<b>Knowledge and Understanding (K)</b>	
<b>D. Organizational Context</b> (Knowledge of the organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. organization standards, process standards and procedures followed in the organization</p> <p>KA2. types of products produced by the organization</p> <p>KA3. code of business conduct</p> <p>KA4. dress code to be followed</p> <p>KA5. job responsibilities/duties and standard operating procedures</p> <p>KA6. internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution</p> <p>KA7. provision of wages, working hours as per organization policy</p> <p>KA8. food safety and hygiene standards followed</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. documentation system followed in the organization such as production chart, process chart and finished products chart</p> <p>KB2. details of raw materials and finished products to be recorded</p> <p>KB3. details of production and process parameters to be recorded and maintained</p> <p>KB4. methods to document and maintain records of observations (if any) related to raw materials, process and finished products</p> <p>KB5. methods to track back the record from finished product to raw material</p> <p>KB6. basic computer knowledge</p> <p>KB7. entering the details in erp system followed by the organization</p>
<b>Skills (S)</b>	
<b>C. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. note the information communicated by the supervisor</p> <p>SA2. note the raw materials used for production and the finished products produced</p> <p>SA3. note the readings of the process parameters and provide necessary information to fill the process chart</p> <p>SA4. note down observations (if any) related to the process</p> <p>SA5. write information documents to internal departments/ internal teams</p> <p>SA6. note down the data for ERP or as required by the organization</p>
	<b>Reading Skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA7. read and interpret the process required for producing various types of products</p> <p>SA8. read and interpret and process flowchart for all products produced</p> <p>SA9. read equipment manuals and process documents to understand the equipment operation and process requirement</p> <p>SA10. read internal information documents sent by internal teams</p>

FIC/N5012

**Complete documentation and record keeping related to production  
of biscuits in industrial units**

	<p><b>Oral Communication (Listening and Speaking skills)</b></p> <p>The user/individual on the job needs to know and understand how to :</p> <p>SA11. discuss task lists, schedules and activities with the supervisor SA12. effectively communicate with the team members SA13. question the supervisor in order to understand the nature of the problem and to clarify queries SA14. attentively listen and comprehend the information given by the speaker SA15. communicate clearly with the supervisor and cross department team on the issues faced</p>
<p><b>B. Professional Skills</b></p>	<p><b>Decision Making</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue SB2. handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)</p>
	<p><b>Plan and Organize</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. plan and organize the work order and jobs received from the supervisor SB4. organize raw materials and packaging materials required for all products following the instruction provided by the supervisor SB5. plan and prioritize the work based on the instructions received from the supervisor SB6. plan to utilise time and equipment's effectively SB7. organize all process/ equipment manuals so as to access information easily SB8. support the supervisor in scheduling tasks for helper(s)</p>
	<p><b>Customer Centricity</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. understand customer requirements and their priority and respond as per their needs</p>
	<p><b>Problem Solving</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB10. support supervisor in solving problems by detailing out problems SB11. discuss the possible solutions with the supervisor for problem solving</p>
	<p><b>Analytical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB12. apply domain information about maintenance processes and technical knowledge about tools and equipment</p>
	<p><b>Critical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB13. use common sense and make judgments on day to day basis SB14. use reasoning skills to identify and resolve basic problems SB15. use intuition to detect any potential problems which could arise during operations SB16. use acquired knowledge of the process for identifying and handling issues</p>

FIC/N5012

Complete documentation and record keeping related to production  
of biscuits in industrial units

## NOS Version Control

NOS Code	FIC/N5012		
Credits (NSQF)	TBD	Version number	1.0
Industry	Food Processing	Drafted on	23/06/15
Industry Sub-sector	Bread and bakery	Last reviewed on	04/09/18
Occupation	Processing	Next review date	30/06/19

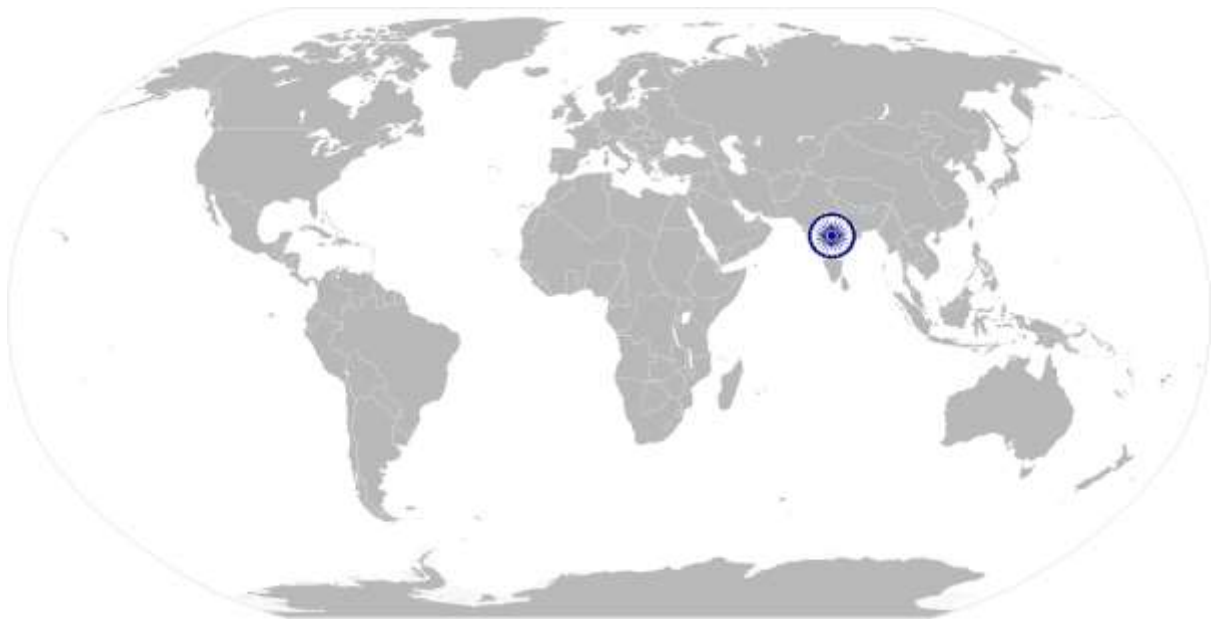
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Food Safety, hygiene and sanitation for processing food products

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# National Occupational Standard



## Overview

This OS unit is about maintaining food safety, hygiene and sanitation in work area and processing unit for processing food products



## Food Safety, hygiene and sanitation for processing food products

<b>Unit Code</b>	FIC/N9001
<b>Unit Title(Task)</b>	<b>Food safety, hygiene and sanitation for processing food products</b>
<b>Description</b>	This OS unit is about maintaining food safety, hygiene and sanitation in work area and processing unit for processing food products
<b>Scope</b>	The scope of this role will include: <ul style="list-style-type: none"> <li>• Perform safety and sanitation related functions (for processing food products)</li> <li>• Apply food safety practices (for processing food products)</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Perform safety and sanitation related functions ( for processing food products)</b>	<p>PC1. comply with food safety and hygiene procedures followed in the organization</p> <p>PC2. ensure personal hygiene by using of gloves, hairnets, masks, ear plugs, goggles, shoes, etc.</p> <p>PC3. ensure hygienic production of food by inspecting raw materials, ingredients, finished products, etc. for compliance to physical, chemical and microbiological parameters</p> <p>PC4. pack products in appropriate packaging materials, label and store them in designated area, free from pests, flies and infestations</p> <p>PC5. clean, maintain and monitor food processing equipment periodically, using it only for the specified purpose</p> <p>PC6. use safety equipment such as fire extinguisher, first aid kit and eye-wash station when required</p> <p>PC7. follow housekeeping practices by having designated area for materials/tools</p> <p>PC8. follow industry standards such as GMP and HACCP and product recall process</p> <p>PC9. attend training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control and prevent them</p> <p>PC10. identify, document and report problems such as rodents and pests to management</p> <p>PC11. conduct workplace checklist audits before and after work to ensure safety and hygiene</p> <p>PC12. document and maintain raw material, packaging material, process and finished products for the credibility and effectiveness of the food safety control system</p>
<b>Apply food safety practices ( for processing food products)</b>	<p>PC13. determine the quality of food using criteria such as aroma, appearance, taste and best before date, and take immediate measures to prevent spoilage</p> <p>PC14. store raw materials, finished products, allergens separately to prevent cross-contamination</p> <p>PC15. label raw materials and finished products and store them in designated storage areas according to safe food practices</p>



**Food Safety, hygiene and sanitation for processing food products**

	PC16. follow stock rotation based on FEFO/ FIFO
<b>Knowledge and Understanding (K)</b>	
<b>E. Organizational Context</b> (Knowledge of the organization and its processes)	The user/individual on the job needs to know and understand: KA1. organization standards, process standards and procedures followed in the organization KA2. types of products produced by the organization KA3. code of business conduct KA4. dress code to be followed KA5. job responsibilities/duties and standard operating procedures KA6. internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution KA7. provision of wages, working hours as per organization policy KA8. food safety and hygiene standards followed
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: KB1. possible physical, chemical and biological hazards and methods of prevention of various hazards KB2. personal hygiene requirement KB3. different types of sanitizers used for process area, equipment and the procedure to use them KB4. knowledge on Food Safety Standards and Regulations (as per FSSAI) KB5. quality parameters and quality assessment based on physical parameters, basic food microbiology KB6. labelling/marketing requirements for raw materials, finished goods, stored materials, packaging materials and their designated storage area KB7. cleaning and sanitation of equipment and work area KB8. CIP and COP methods and procedures KB9. storage norms for raw materials, packaging material and finished products KB10. stock rotation of ingredients and finished products based on FEFO/FIFO KB11. method of maintaining safety check lists for all machineries KB12. GHP KB13. GMP KB14. HACCP
<b>Skills (S)</b>	
<b>D. Core Skills/ Generic Skills</b>	<b>Writing Skills</b> The user/ individual on the job needs to know and understand how to: SA1. note the information communicated by the supervisor SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process

### Food Safety, hygiene and sanitation for processing food products

	<p>SA5. write information documents to internal departments/ internal teams</p> <p>SA6. note down the data for ERP or as required by the organization</p>
	<p><b>Reading Skills</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA7. read and interpret the process required for producing various types of products</p> <p>SA8. read and interpret and process flowchart for all products produced</p> <p>SA9. read equipment manuals and process documents to understand the equipment operation and process requirement</p> <p>SA10. read internal information documents sent by internal teams</p>
	<p><b>Oral Communication (Listening and Speaking skills)</b></p> <p>The user/individual on the job needs to know and understand how to :</p> <p>SA11. discuss task lists, schedules and activities with the supervisor</p> <p>SA12. effectively communicate with the team members</p> <p>SA13. question the supervisor in order to understand the nature of the problem and to clarify queries</p> <p>SA14. attentively listen and comprehend the information given by the speaker</p> <p>SA15. communicate clearly with the supervisor and cross department team on the issues faced</p>
<b>B. Professional Skills</b>	<p><b>Decision Making</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue</p> <p>SB2. handle issues in case the supervisor is not available (as per the authority matrix defined by the organization)</p>
	<p><b>Plan and Organize</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. plan and organize the work order and jobs received from the supervisor</p> <p>SB4. organize raw materials and packaging materials required for all products following the instruction provided by the supervisor</p> <p>SB5. plan and prioritize the work based on the instructions received from the supervisor</p> <p>SB6. plan to utilise time and equipment's effectively</p> <p>SB7. organize all process/ equipment manuals so as to access information easily</p> <p>SB8. support the supervisor in scheduling tasks for helper(s)</p>
	<p><b>Customer Centricity</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. understand customer requirements and their priority and respond as per their needs</p>
	<p><b>Problem Solving</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB10. support supervisor in solving problems by detailing out problems</p> <p>SB11. discuss the possible solutions with the supervisor for problem solving</p>
	<p><b>Analytical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p>



**Food Safety, hygiene and sanitation for processing food products**

	SB12. apply domain information about maintenance processes and technical knowledge about tools and equipment
	<b>Critical Thinking</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB13. use common sense and make judgments on day to day basis</p> <p>SB14. use reasoning skills to identify and resolve basic problems</p> <p>SB15. use intuition to detect any potential problems which could arise during operations</p> <p>SB16. use acquired knowledge of the process for identifying and handling issues</p>

**Food Safety, hygiene and sanitation for processing food products**

**NOS Version Control**

<b>NOS Code</b>	<b>FIC/N9001</b>		
<b>Credits (NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Food Processing</b>	<b>Drafted on</b>	<b>23/06/15</b>
<b>Industry Sub-sector</b>	<b>Bread and bakery</b>	<b>Last reviewed on</b>	<b>04/09/18</b>
<b>Occupation</b>	<b>Processing</b>	<b>Next review date</b>	<b>30/06/19</b>

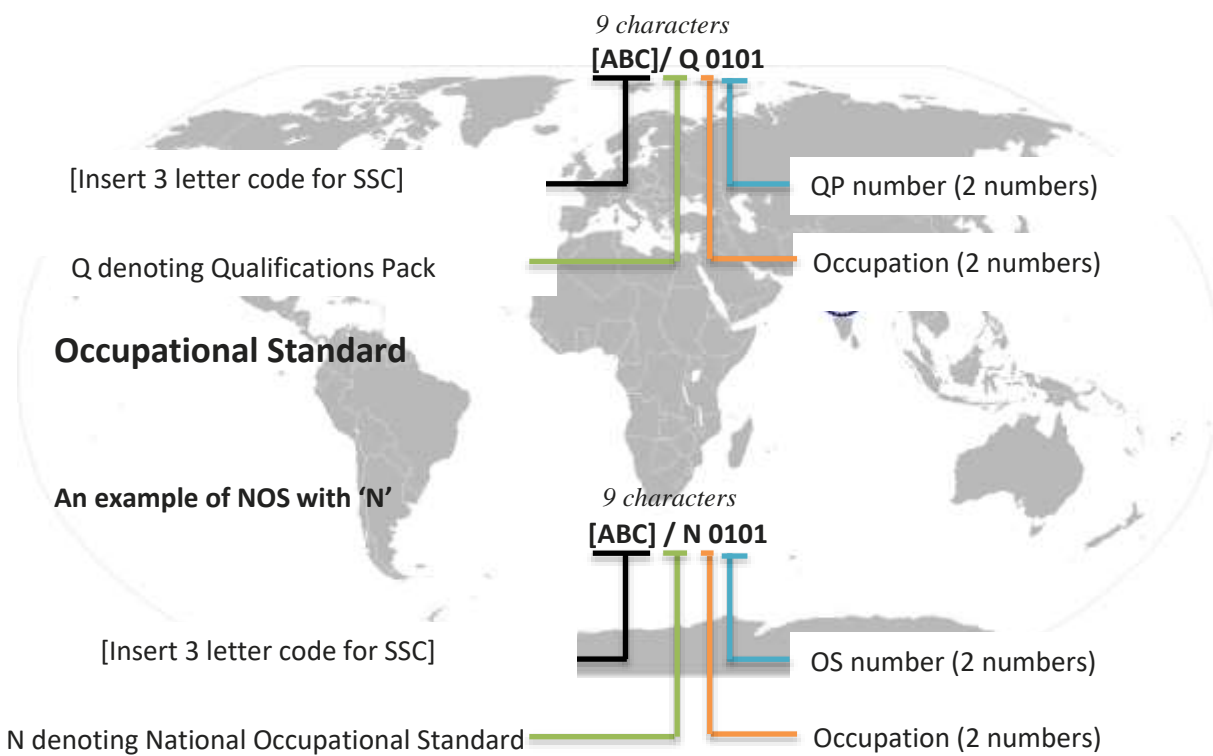
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Qualifications Pack for Plant Biscuit Production Specialist

Annexure

Nomenclature for QP and NOS

Qualifications Pack



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## Qualifications Pack for Plant Biscuit Production Specialist

The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
<b>Fruit and Vegetable</b>	<b>01 – 09</b>
<b>Food Grain Milling (including Oilseeds)</b>	<b>10 - 19</b>
<b>Dairy products</b>	<b>20 - 30</b>
<b>Meat and Poultry</b>	<b>30 – 40</b>
<b>Fish and Sea Food</b>	<b>40 - 49</b>
<b>Bread and Bakery</b>	<b>50 - 59</b>
<b>Alcoholic Beverages</b>	<b>60 - 69</b>
<b>Aerated water/ soft drinks</b>	
<b>Quality Analysis (involving physical and chemical lab analysis)</b>	<b>76 – 79</b>
<b>Packaging, Refrigeration and Procurement</b>	<b>70 – 75</b>
<b>Miscellaneous</b>	<b>80 – 84</b>
<b>Packaged Foods</b>	<b>85 - 90</b>
<b>Soya Food Processing</b>	<b>90 - 95</b>

Sequence	Description	Example
Three letters	Industry name	FIC
Slash	/	/
Next letter	Whether QP or NOS	Q or N
Next two numbers	Occupation code	01
Next two numbers	OS number	01

Note:

- The range of occupation numbers have been decided based on the number of existing and future occupations in a segment

**Assessment criteria**

**CRITERIA FOR ASSESSMENT OF TRAINEES**

**Job Role** Plant Biscuit Production Specialist

**Qualification Pack** FIC/Q5003

**Sector Skill Council** Food Processing

**Guidelines for Assessment**

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
  2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
  3. Assessment will be conducted for all compulsory NOS, as well as the selected elective NOS/set of NOS.
- OR
4. Assessment will be conducted for all compulsory NOS, as well as the selected optional NOS/set of NOS.
  5. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
  6. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
  7. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
  8. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

		Marks Allocation			
		Total Marks	Out Of	Theory	Skills Practical
<b>1. FIC/N5009 (Prepare and maintain work area and process machineries for producing biscuits in industrial units)</b>	PC1. Clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests	<b>100</b>	25	10	15
	PC2. Ensure that the work area is safe and hygienic for food processing		10	3	7
	PC3. Dispose waste materials as per defined SOPs and industry requirements		15	5	10
	PC4. Check the working and performance of all machineries and tools used for production such		15	5	10



**Assessment criteria**

	as proof box, oven, packaging machines, etc.				
	PC5. Clean the machineries and tools used with recommended sanitizers following specifications and SOPs		15	5	10
	PC6. Place the necessary tools required for the process		5	2	3
	PC7. Attend minor repairs/ faults of machines, if required		15	5	10
			<b>100</b>	<b>35</b>	<b>65</b>
<b>2.FIC/N5010 (Prepare for production of biscuits in industrial units)</b>	PC1. Read and understand the production order from the supervisor	<b>100</b>	5	1	4
	PC2. Check the availability of raw materials and ingredients such as flour, sugar, shortenings, additives, preservatives, etc., packaging materials, working of machineries and availability of manpower		5	2	3
	PC3. Calculate total weight of dough required for order quantity (considering process loss)		5	1	4
	PC4. Plan production sequence by: <ul style="list-style-type: none"> <li>grouping similar type of products (hard and soft biscuits)</li> <li>grouping similar type of dough (hard and soft dough)</li> <li>grouping products that require similar process and process parameters</li> <li>grouping products that require same</li> </ul>		15	5	10

**Assessment criteria**

	<p>processing machineries</p> <ul style="list-style-type: none"> <li>• planning maximum capacity utilization of machineries</li> <li>• avoiding clean-in-place (CIP) after each type of product</li> <li>• planning efficient utilization of resources/manpower</li> <li>• prioritizing urgent orders</li> </ul>				
	PC5. Ensure the working and performance of each equipment required for the process		7	2.5	4.5
	PC6. Calculate the process time for each batch for effective utilization of machineries		7	3	4
	PC7. Plan batch size considering full capacity utilization of machineries		3	1.5	1.5
	PC8. Allot responsibilities/work to the assistants and helpers		7	2	5
	PC9. Refer to the process chart/ product flow chart/formulation chart for product(s) produced		5	2	3
	PC10. Weigh the raw materials and ingredients required for the batch		5	2	3
	PC11. Check the conformance of raw material quality to organization standards by verifying the quality analysis report from the supplier/ internal lab and by checking the physical parameters like appearance, colour, aroma, texture etc.		5	1	4

**Assessment criteria**

	PC12. Organize the equipments as per the process requirement		3	1	2
	PC13. Change dies, moulds, etc. and other parts of machineries to prepare for production		10	3	7
	PC14. Start machine and check the working and performance of the machine		5	2	3
	PC15. Make minor adjustments or repairs (if required)		10	5	5
	PC16. Keep the tools accessible to attend repairs/faults in case of breakdown		3	1	2
			<b>100</b>	<b>35</b>	<b>65</b>
<b>3. FIC/N5011 (Produce biscuits in industrial units)</b>	PC1. Refer to the work order and formulation and organize all the ingredients required for the order	<b>100</b>	2	1	1
	PC2. Check the quality of each ingredient through physical parameters such as appearance, colour, odour, texture, etc. For its conformance to organization standards		2	1	1
	PC3. Weigh and measure all ingredients such as flour, fat, water, sugar, additives, flavours, spices, etc. Required for product/batch and sift the ingredients manually (in manually operated unit)		2	1	1
	PC4. Set and control metering devices that weigh, measure, sift, and convey each approved ingredients into the mixing machine for each ingredients such as flour, fat, water, sugar, additives, approved flavours and colours		5	2	3

**Assessment criteria**

	spices etc required for the product (in mechanized unit)			
	PC5. Check the scale indicators to confirm if specified amount of ingredients have been added		3	1 2
	PC6. Mix all the ingredients manually to desired consistency		1	0.5 0.5
	PC7. Transfer all the ingredients together or sequentially into the mixer depending on the method followed by the organization		2	0.5 1.5
	PC8. Set the mixer speed, time and temperature depending on the mixing processes followed by the organization and start the mixer to mix and knead the ingredients to make hard/ soft dough for biscuits		2	0.5 1.5
	PC9. Control the mixing time and mixing temperature which are critical for making hard/soft dough for biscuits		2	0.5 1.5
	PC10. Check the dough consistency periodically until achieving dough of desired consistency		2	0.5 1.5
	PC11. Ferment the dough if required		3	1 2
	PC12. Feed the hard dough into the layering or forming machines or dough feeder as required		3	1 2
	PC13. Ensure the correct forming and moulding of the dough		2	0.5 1.5
	PC14. Set the controls of each sheeting roller of the laminator machine to produce continuous sheet of hard dough as per specifications and		2	0.5 1.5

**Assessment criteria**

	standards (for hard dough)				
	PC15. Set the required moulding roller/ cutter/ die		2	0.5	1.5
	PC16. Set the controls of rotary cutter machine to cut the sheet of hard dough to desired size, shape and design as per specifications and standards of the organization		5	2	3
	PC17. Set the controls of the conveyors to separate the cut hard dough and control scrap return		2	0.5	1.5
	PC18. Control operation of the sprinkler		2	0.5	1.5
	PC19. Set the controls of rotary cutter machine and start machine to mould soft dough to desired size, shape, weight and thickness as per specifications and standards of the organization (for soft dough)		2	0.5	1.5
	PC20. Ensure correct transfer of dough pieces to the oven band		2	0.5	1.5
	PC21. Pre-heat the oven and set the oven parameters such as baking temperature and baking time (batch process), load the filled pans /moulds in the oven and bake the dough monitoring oven parameters during baking process		5	2	3
	PC22. Set and maintain the speed of the panning conveyor to control the shaped/moulded dough entering the tunnel oven (continuous process)		3	1	2

**Assessment criteria**

	PC23. Set the oven parameters such as temperature, time, conveyor speed, etc. And monitor the oven parameters during baking process		2	0.5	1.5
	PC24. Observe baking of biscuits through the observation window of the tunnel oven		1	0.5	0.5
	PC25. Observe quality of baked biscuit coming out of oven through parameters such as color, aroma, texture, etc. To detect over baking /under baking and control oven parameters to achieve finished product of uniform quality		5	2	3
	PC26. Remove non-conforming products from the conveyor		3	1	2
	PC27. Check the quality of the finished products through physical parameters such as colour, size, appearance, texture, aroma, taste, etc. And compare against standard		5	2	3
	PC28. Set, control and maintain speed of the cooling conveyor to cool the biscuit		2	1	1
	PC29. Weigh the ingredients such as fat, sugar, chocolate, flavour, etc. Required for preparing the cream/centre filling material for soft dough biscuits		3	1	2
	PC30. Transfer the ingredients into the mixer, set and adjust controls and start mixer to mix cream ingredients		3	1	2
	PC31. Transfer cream into the cream feed and set controls of metering devices of cream feed on the sandwiching machine		2	0.5	1.5

**Assessment criteria**

	PC32. Set controls of the sandwiching machine to fill measured quantity of cream on soft dough biscuit, position and place another soft dough biscuit over cream filled biscuit, press the biscuits and maintain the thickness of the cream biscuit		2	0.5	1.5
	PC33. Check the quality of the finished products through physical parameters such as colour, size, appearance, texture, aroma, taste etc. And compare against standard		2	0.5	1.5
	PC34. Remove non-conforming products from the conveyor		2	1	1
	PC35. Report discrepancies/concerns in each stage of production to department supervisor for immediate action		3	1	2
	PC36. Clean the work area, machineries, equipment and tools using recommended cleaning agents and sanitizers		2	1	1
	PC37. Attend minor repairs/faults of all machines (if any)		2	0.5	1.5
	PC38. Ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) maintenance of all machines and equipment following the SOP or following suppliers instructions/manuals		5	2	3
			<b>100</b>	<b>35</b>	<b>65</b>
<b>4. FIC/N5012 (Complete documentation and record keeping related to production of biscuits in industrial units)</b>	PC1. Document and maintain record of all raw materials used for making biscuits such as name of raw materials, supplier details, batch number, receiving date/	<b>100</b>	10	6	4



**Assessment criteria**

	date of manufacture, expiry date, supplier quality document, quality parameters of all raw materials, internal quality analysis report, etc. as per organizational standards			
	PC2. Maintain record of observations (if any) related to raw materials	5	3	2
	PC3. Load the raw materials details in ERP for future reference	5	3	2
	PC4. Verify the documents and track from finished product to raw materials, in case of quality concerns and during quality management system audit	5	3	2
	PC5. Document and maintain record of production details such as the product produced, production sequence, equipments and machinery details, efficiency and capacity utilization of equipment	10	6	4
	PC6. Document and maintain record of process details such as type of raw material used, type of dough, process parameters ( temperature, time, etc.) for entire process in process chart or production log for all products produced	15	9	6
	PC7. Document and maintain record of batch size, raw material used, yield after each stage of process, wastage, energy utilization and final products produced	10	6	4

**Assessment criteria**

	PC8. Maintain record of observations (if any) or deviations related to production and process parameters		5	3	2
	PC9. Load the production plan and process details in ERP for future reference		5	3	2
	PC10. Verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits		5	3	2
	PC11. Document and maintain record of finished products details such as type of products produced, quantity produced per batch, quantity produced in each type of product, batch number, time of packing, date of manufacture, date of expiry, other label details, primary ,secondary and tertiary packaging materials for all finished products, storage conditions, etc. as per organizational standards		10	6	4
	PC12. Maintain record of observations or deviations (if any) related to finished products		5	3	2
	PC13. Load the details of finished products in ERP for future reference		5	3	2
	PC14. Verify the documents and track from finished product to raw materials, in case of quality concerns and for quality management system audits		5	3	2

**Assessment criteria**

			100	60	40
<b>5. FIC/N9001 (Food safety, hygiene and sanitation for processing food products)</b>	PC1. Comply with food safety and hygiene procedures followed in the organization		5	2	3
	PC2. Ensure personal hygiene by using of gloves, hairnets, masks, ear plugs, goggles, shoes, etc.		6	1	5
	PC3. Ensure hygienic production of food by inspecting raw materials, ingredients, finished products, etc. for compliance to physical, chemical and microbiological parameters		5	2	3
	PC4. Pack products in appropriate packaging materials, label and store them in designated area, free from pests, flies and infestations		10	4	6
	PC5. Clean, maintain and monitor food processing equipment periodically, using it only for the specified purpose		5	2	3
	PC6. Use safety equipment such as fire extinguisher, first aid kit and eye-wash station when required		10	4	6
	PC7. Follow housekeeping practices by having designated area for materials/tools		5	2	3
	PC 8. Follow industry standards like GMP and HACCP and product recall process		10	4	6
	PC 9. Attend training on hazard management to understand types of hazards such as physical, chemical and biological		5	1	4

**Assessment criteria**

	hazards and measures to control and prevent them				
	PC 10. Identify, document and report problems such as rodents and pests to management		5	1	4
	PC 11. Conduct workplace checklist audits before and after work to ensure safety and hygiene		5	1	4
	PC 12. Document and maintain raw material, packaging material, process and finished products for the credibility and effectiveness of the food safety control system		4	1	3
	PC 13. Determine the quality of food using criteria such as aroma, appearance, taste and best before date, and take immediate measures to prevent spoilage		5	2	3
	PC 14. Store raw materials, finished products, allergens separately to prevent cross-contamination		5	2	3
	PC 15. Label raw materials and finished products and store them in designated storage areas according to safe food practices		5	2	3
	PC 16. Follow stock rotation based on FEFO/ FIFO		10	4	6
			<b>100</b>	<b>35</b>	<b>65</b>