

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR HANDICRAFTS AND CARPET INDUSTRY

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

Contact Us:

HCSSC, New Delhi
Handicrafts and Carpet
Sector Skill Council,
3rd Floor, OCF, Plot No.
2, Pocket 9, Sector B,
Vasant Kunj,
New Delhi-110070

E-mail:
hcsc@hcsc.in



Contents

1. Introduction and Contacts.....P1
2. Qualifications Pack.....P2
3. Glossary of Key Terms.....P3
4. OS Units.....P5
5. Nomenclature for QP & OS.....P29

Introduction

Qualifications Pack – Furnace Operator

SECTOR: HANDICRAFTS AND CARPET

SUB-SECTOR: Ceramics, Glassware

OCCUPATION: Furnace Operation

REFERENCE ID: HCS/Q2101

ALIGNED TO: NCO-15/8181.1500; NCO-15/8181.1200

Brief Job Description: The individual at work is responsible for operating a furnace. The individual must understand the different kinds of furnaces used in handicrafts. He should have proper idea of the requirement of flame temperature inside the furnace as per product specifications.

Personal Attributes: The job requires the individual to have the ability to work in high temperature and high decibel noise environment near furnaces, with attention to details and quick decision making capabilities.



Qualifications Pack Code	HCS/Q2101		
Job Role	Furnace Operator		
Credits(NSQF)	TBD	Version number	1.0
Sector	Handicrafts and Carpet	Drafted on	27/02/15
Sub-sector	Ceramics, Glassware	Last reviewed on	28/06/18
Occupation	Furnace Operation	Next review date	28/06/20
NSQC Clearance On	03/08/18		

Job Role	Furnace Operator
Role Description	Operate and maintain furnace
NSQF level	4
Minimum Educational Qualifications	Basic Literacy and Numeracy
Maximum Educational Qualifications	Not Applicable
Training (Suggested but not mandatory)	Not Applicable
Experience	Minimum 6 months as Furnace operation helper
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> HCS/N2103 Carry out furnace operations HCS/N9901 Coordinate with colleagues and work as a team HCS/N9902 Maintain safe work environment HCS/N9903 Maintain personal health HCS/N9904 Basic business management
Performance Criteria	As described in the relevant OS units



Definitions

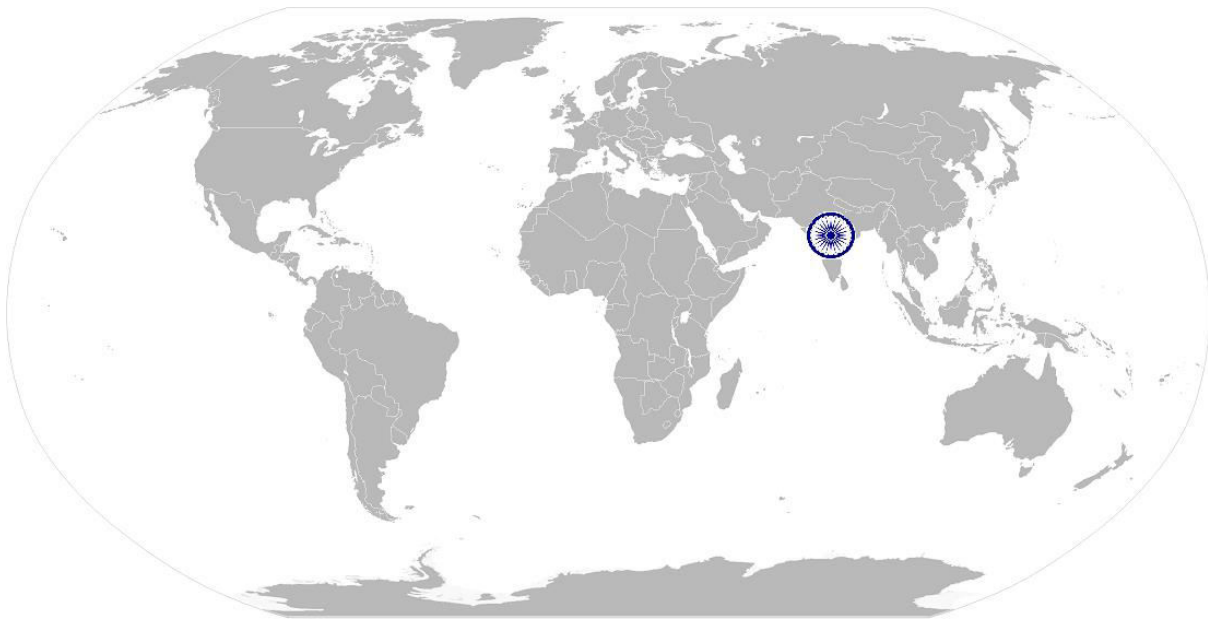
Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
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 functional analysis and form the basis of OS.
Sub-functions	Sub-functions are sub-activities essential achieving the objectives of the function.
Job role	Job role defines unique set of functions that together form a unique employment opportunity in an organization.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve consistently while carrying out a function at the workplace. Occupational Standards as set of competencies is applicable both in Indian and overreaching global contexts.
Performance Criteria	Performance Criteria defined for a task are statements that together specify the standard of performance while carrying out the task.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack(QP)	Qualifications Pack comprises set of OS, together with the educational, training and other criteria that are required to perform a job role satisfactorily at workplace. A Qualifications Pack is assigned a unique qualification pack code for clear identification.
Knowledge and Understanding	Knowledge and Understanding are statements which together as a set specify the technical, generic, professional and organization specific knowledge that an individual needs to possess in order to perform and meet the required standards consistently.
Organizational	Organizational Context includes the way the organization is structured and how it



Context	operates. It includes elements of operational knowledge contents defined in relation to functioning of an organization that a skilled professional need to possess specific to its precise areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific domain knowledge needed to accomplish the task in combination with other competencies. It is usually coined with specifically designated roles and responsibilities.
Core Skills/Generic Skills	Core Skills or Generic Skills as set are group of skills. It is key to working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include mainly communication related skills that are applicable to most job roles.
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.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Keywords /Terms	Description
SSC	Sector Skill Council
OS	Occupational Standard(s)
NOS	National Occupational Standard(s)
QP	Qualifications Pack
NSQF	National Skill Qualifications Framework
NCO	National Classifications of Occupation
TBD	To Be Determined
HCS	Handicrafts and Carpet Skill Sector Council
NSDC	National Skill Development Corporation



National Occupational Standard



Overview

This unit is about combustion control inside the furnace for processing different materials as per product specifications. It also involves temperature control at the desired level, control of air compressor and secondary air and level control inside the furnace.



HCS/N2103

Carry out furnace operations

National Occupational Standard

Unit Code	HCS/N2103
Unit Title (Task)	Carry out furnace operations
Description	This unit is about combustion control inside the furnace for processing different materials as per product specifications. It also involves temperature control at the desired level, control of air compressor and secondary air and level control inside the furnace.
Scope	<p>This unit/ task covers the following:</p> <ul style="list-style-type: none"> Control the temperature distribution inside the furnace Control the secondary air and exhaust gas recovery Control the flame length Understand the furnace insulation Achieve productivity, quality and safety standards
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Control the temperature distribution inside the furnace	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Operate the furnace with understanding of controls and specifications</p> <p>PC2. Understand the temperature requirement as per the product requirements and provide specifications</p> <p>PC3. Maintain temperature distribution inside the furnace at the optimum level</p> <p>PC4. Monitor the batch movement inside the furnace</p> <p>PC5. Control the cooling air inside the furnace</p> <p>PC6. Control the fuel at each port through burners</p> <p>PC7. Operate the air compressor</p>
Control the secondary air and exhaust gas recovery	<p>PC8. Control the preheating of secondary gas</p> <p>PC9. Monitor and control the flow of exhaust gas</p> <p>PC10. Understand and follow the procedure for exhaust gas recovery</p>
Control the flame length	<p>PC11. Adjust burner capacity</p> <p>PC12. Control the volume of primary air</p> <p>PC13. Control the flame rotary angle as per requirement</p> <p>PC14. Achieve the required flame atomising pressure</p> <p>PC15. Adjust and control the secondary air</p>
Understand the furnace insulation	<p>PC16. Understand the insulation for the melting chamber</p> <p>PC17. Understand crown insulation</p> <p>PC18. Understand side wall insulation</p> <p>PC19. Prevent cold air from entering through inlet opening</p> <p>PC20. Ensure that outlet opening is closed during operation</p>
Achieve productivity, quality and safety standards	<p>PC21. Operate the furnace and ensure periodical targets are met as per supervisor instructions</p> <p>PC22. Deduce any maintenance requirement and ensure that the furnace is</p>



HCS/N2103

Carry out furnace operations

	<p>operational all the time</p> <p>PC23. Follow the standard operating procedure during furnace operation and avoid any damage</p> <p>PC24. Follow standard safety guidelines and mention dos and don'ts for other employees who comes near furnace operation area</p> <p>PC25. Ensure adequate fuel supply by informing procurement assistant to avoid work delay</p>
Knowledge and Understanding (K)	
<p>A. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. The company's policies</p> <p>KA2. The company's code of conduct</p> <p>KA3. Organisational culture and typical product profile</p> <p>KA4. Company's reporting structure</p> <p>KA5. The importance of individual's role in the workflow</p> <p>KA6. Company's daily/monthly targets for different product items</p> <p>KA7. Quality and safety standards</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. About the different types of melting furnaces</p> <p>KB2. Furnace operation and control</p> <p>KB3. Specifications of a furnace</p> <p>KB4. Basic upkeep of a furnace</p> <p>KB5. Temperature and control requirements for different products</p> <p>KB6. Combustion control inside furnace</p> <p>KB7. Control of primary and secondary air in the furnace</p> <p>KB8. How to operate, control and maintain the furnace</p> <p>KB9. Batch movement inside furnace</p> <p>KB10. Temperature distribution inside furnace</p> <p>KB11. Furnace insulation</p> <p>KB12. Quality standards</p> <p>KB13. Safety regulations to be followed</p>
Skills (S) [Optional]	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Measure furnace/flame temperature</p> <p>SA2. Measure air compressor</p> <p>SA3. Keep log book for the furnace</p>
	<p>Reading skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. Read and write the job requirement</p> <p>SA5. Read company policy documents</p>
	<p>Oral communication (Listening and Speaking skills)</p>



HCS/N2103

Carry out furnace operations

	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA6. Seek inputs at assessing problems</p> <p>SA7. Communicate in local language</p> <p>SA8. Educate and inform production team regarding temperature requirement for production of different kinds of products</p> <p>SA9. Educate on precautions to be taken during production to ensure safe working surroundings</p> <p>SA10. Give feedback to production manager regarding the quality of products</p>
B. Professional Skills	Decision making
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB1. Decide on material requirement for furnace operation</p>
	Plan and organize
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB2. Plan for material and time requirement for furnace operation</p>
	Customer centricity
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB3. Customer's preferences on craft products</p>
	Problem solving
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB4. Identify any problems/ issues in the furnace and find solution</p> <p>SB5. Anticipate problems and take necessary actions</p> <p>SB6. Seek assistance from supervisors and technicians to resolve problems</p>
	Analytical thinking
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB7. Analyse the temperature requirement for various products</p>
Critical thinking	
<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB8. Spot process disruptions and delays</p>	



HCS/N2103

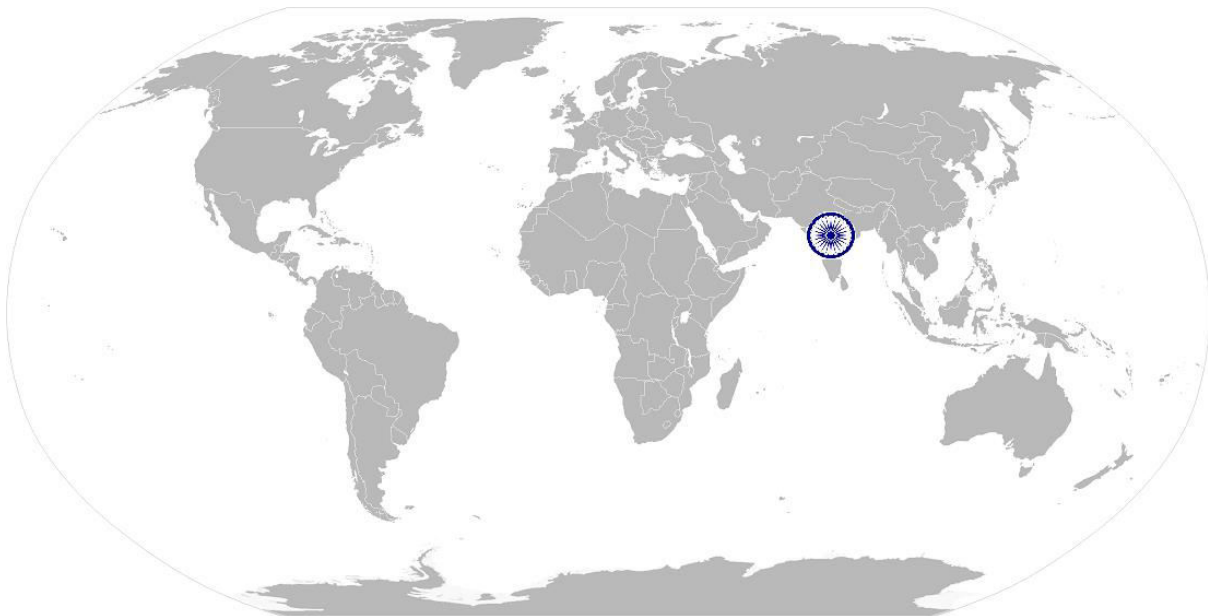
Carry out furnace operations

NOS Version Control

NOS Code	HCS/N2103		
Credits(NSQF)	TBD	Version number	1.0
Industry	Handicrafts and Carpet	Drafted on	27/02/15
Industry Sub-sector	Ceramics, Glassware	Last reviewed on	28/06/18
Occupation	Furnace Operation	Next review date	28/06/20



National Occupational Standard



Overview

This unit is about individual's coordination and communication level with colleagues and superiors so as to achieve the deliverable on time through a smooth workflow.



HCS/N9901

Coordinate with colleagues and work as a team

National Occupational Standard

Unit Code	HCS/N9901
Unit Title (Task)	Coordinate with colleagues and work as a team
Description	This OS unit is about communicating and coordinating with colleagues and superiors in order to achieve smooth and hazard-free workflow during production. It is about the ability to work as a team member, share work and multi-task to meet the deliverables as scheduled with quality requirements, assuring no process disruptions.
Scope	This unit/ task covers the following: <ul style="list-style-type: none"> • Interact with supervisor or superior • Work as a team by coordinating with colleagues within and outside the department • Report and document
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Interact with supervisor or superior	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. Receive job order and instructions from reporting supervisor PC2. Understand the work output requirements, targets, performance indicators and incentives PC3. Deliver quality work on time and report any anticipated reasons for delays PC4. Report on any grievances, production defects and any potential hazards PC5. Communicate on process flow improvements PC6. Communicate regarding maintenance and repair schedule proactively to the supervisor PC7. Receive feedback on work standards PC8. Interact and clarify doubts on design, usage of materials & tools, quality & standards compliance, etc. PC9. Report in time for shortage or need of raw materials PC10. Handover completed work to supervisor
Work as a team by coordinating with colleagues within and outside the department	<ul style="list-style-type: none"> PC11. Communicate with colleagues from within and other departments, clearly and effectively on all aspects to carry out the work among the team PC12. Maintain the etiquettes, use polite language, demonstrate responsible and disciplined behaviours towards colleagues PC13. Interact with colleagues from different functions and understand the nature of their work PC14. Put team over individual goals and multi-task or share work where necessary supporting the colleagues PC15. Resolve conflicts and ensure smooth workflow PC16. Interact and understand the production requirement for the day from the previous and successive processing department and work accordingly PC17. Communicate and discuss work flow related difficulties in order to find



HCS/N9901

Coordinate with colleagues and work as a team

	<p>solutions with mutual agreement</p> <p>PC18. Receive feedback from Quality Control and rework in order to complete work on time</p> <p>PC19. Share information with colleagues to enable efficient delivery of work</p> <p>PC20. Highlight any error of colleagues, help to rectify and ensure quality output</p> <p>PC21. Work with cooperation, coordination, communication and collaboration towards the shared goals, supporting each other's performance</p>
Report and Document	<p>PC22. Document all the details accurately relating to one's role as required</p> <p>PC23. Report on the completed work and keep it in records</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Company's policies on preferred language of communication, incentives, quality standards, personnel management, reporting and escalation matrix policy</p> <p>KA2. Company's standard operating procedure (SOP), and the risk and impact of not following them</p> <p>KA3. Procedures for working with colleagues, his/her role and responsibilities in relation to this</p> <p>KA4. Organizational hierarchy and the line of reporting structure</p> <p>KA5. Procedures to report employment related issues and to deal with conflicts</p> <p>KA6. Workflow involved in the company's production process and the sequence of operations</p> <p>KA7. Importance of the individual's role in the organizational workflow and details of the individual responsibilities</p> <p>KA8. Work target and review mechanism</p> <p>KA9. Common potential hazards in the work place and the procedures to deal with them</p> <p>KA10. Tools and equipments handling procedure</p> <p>KA11. Documentation procedures as required</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB14. Effective communication with various categories of people and the different departments in the organization</p> <p>KB15. The need for building team coordination and working effectively in a team for organizational and individual success</p> <p>KB16. Basics of helping colleagues with specific issues and problems, meeting quality and time standards as a team</p> <p>KB17. Importance of listening actively to team members</p> <p>KB18. Proper tone and pitch for communication, ethics and discipline for professional success</p> <p>KB19. Effective working relationship with mutual trust and respect within the team</p>



HCS/N9901

Coordinate with colleagues and work as a team

	Expressing and addressing grievances appropriately, dealing with difficult work relationships and managing the internal conflicts effectively
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Reading skills
	The user/ individual on the job needs to know and understand how to: SA1. Read job sheets, design sheet and information displayed at the workplace SA2. Read notes/comments from the supervisor SA3. Read and understand manuals, health and safety instructions, memos etc.
	Writing skills
	The user/ individual on the job needs to know and understand how to: SA4. Carry out documentation in accordance to one's role
	Communication skills
	The user/ individual on the job needs to know and understand how to: SA5. Interact with team members to work efficiently SA6. Communicate effectively with supervisor
B. Professional Skills	Decision making skills
	The user/ individual on the job needs to know and understand how to: SB1. Spot and communicate potential areas of disruptions to work process and report the same SB2. Report to supervisor and deal with a colleague individually, depending on the type of concern
	Plan and Organize
	The user/ individual on the job needs to know and understand how to: SB3. Coordinate with different departments, multi task and deliver product to next work process on time SB4. Contribute to quality of team work and achieve smooth workflow SB5. Share work load as required
	Problem solving
	The user/ individual on the job needs to know and understand how to: SB6. Resolve recurring inter-personal conflicts
	Analytical thinking
	The user/ individual on the job needs to know and understand how to: SB7. Improve work processes by interacting with others and adopting best practices
Critical thinking	
The user/ individual on the job needs to know and understand how to: SB8. Spot process disruptions and delays and report and communicate with solutions	



HCS/N9901

Coordinate with colleagues and work as a team

NOS Version Control

NOS Code	HCS/N9901		
Credits(NSQF)	TBD	Version number	1.0
Industry	Handicrafts (Ceramics), Handicrafts (Fashion Jewellery), Handicrafts (Stonecraft), Glassware, Metalware	Drafted on	23/02/15
Industry Sub-sector	Handicrafts	Last reviewed on	23/03/18
Occupation	Production Management, Research and Development, Mixing and Milling, Moulding, Finishing and Painting, Pre-Production, Furnace Operation, Quality Check, Production, Pre - Crafting, Stone Crafting, Mixing, Moulding, Cutting, Smoothing, Finishing, Designing, Metal Casting and Stamping, Metal Craft Making, Cleaning/Polishing/Buffing, Painting and Plating, Packing, Marketing and Merchandising	Next review date	23/03/20



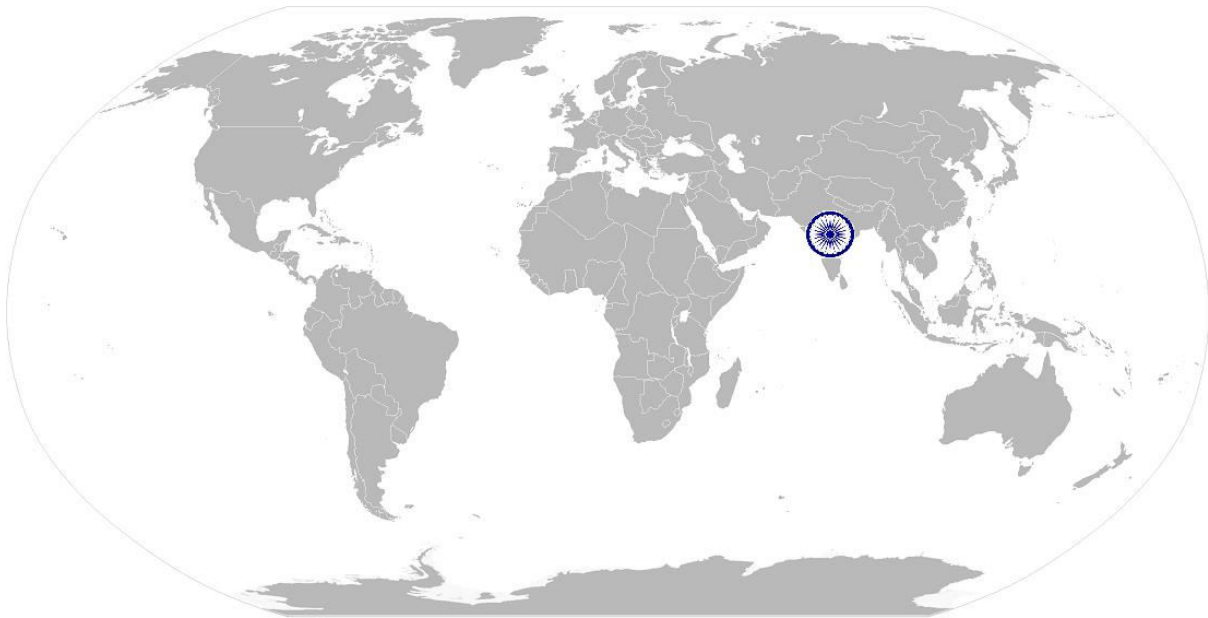
HCS/N9902

NOS
National Occupational Standards

Maintain safe work environment



National Occupational Standard



Overview

This unit is about the individual's effort to maintain safe work environment.



HCS/N9902

Maintain safe work environment

Unit Code	HCS/N9902
Unit Title (Task)	Maintain safe work environment
Description	This OS unit is about following adequate safety procedures to make work environment safe.
Scope	This unit/ task covers the following: <ul style="list-style-type: none"> Follow safety procedure and practices Achieve safety standards
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Follow safety procedure and practices	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Comply with safety procedures while on work to prevent accidents</p> <p>PC2. Take adequate safety measures while handling materials, chemicals and tools</p> <p>PC3. Wear appropriate personal protective gears such as gloves, protective goggles, masks etc. while working</p> <p>PC4. Undertake basic safety checks before operation of all tools and electrical equipments</p> <p>PC5. Wear appropriate and recommended clothing as per the work environment</p> <p>PC6. Follow recommended material handling procedure to control material and personal damage</p> <p>PC7. Perform all procedures as per company's work instructions for controlling operational risk</p> <p>PC8. Perform the duties in a manner which minimizes environmental damage</p> <p>PC9. Dispose of waste safely and correctly in a designated area as per company's SOP</p> <p>PC10. Report any accidents, incidents or problems without delay to the supervisor and take necessary immediate action to reduce further danger</p>
Achieve safety standards	<p>PC11. Ensure zero accident at workplace</p> <p>PC12. Adhere to safety standards and ensure no material damage</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Company's policies on work safety and occupational hazard management</p> <p>KA2. Company's HR policies</p> <p>KA3. Company's reporting structure</p> <p>KA4. Company emergency evacuation procedure to avoid accidental risks to the</p>



HCS/N9902

Maintain safe work environment

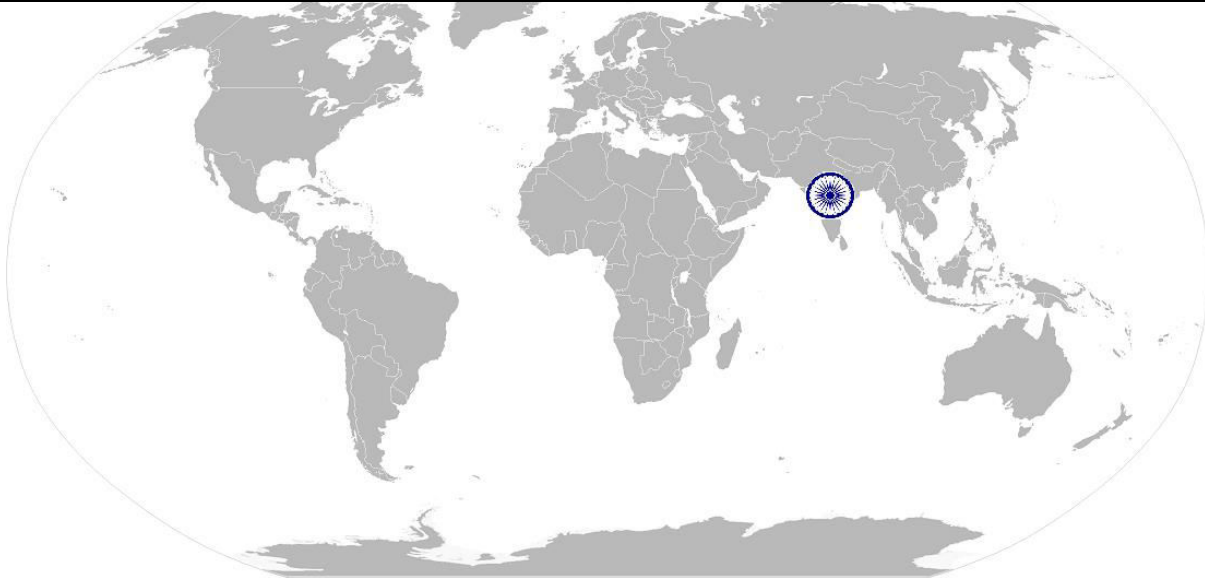
its processes)	worker
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. How to maintain the work area safe and secure</p> <p>KB2. How to perform the duties in a way to minimize accidental risks</p> <p>KB3. How to handle chemicals</p> <p>KB4. Purpose and usage of protective gears such as gloves , protective goggles, masks, etc. while working</p> <p>KB5. Material handling procedure</p> <p>KB6. Standard Operating Procedure (SOP) of processes</p> <p>KB7. Precautionary activities to be followed in the processes</p> <p>KB8. How to operate tools and electrical equipments</p> <p>KB9. Emergency procedures to be followed in case of an mishap such as fire accidents etc.</p>
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Reading skills
	The user/individual on the job needs to know and understand how to:
	SA1. Read safety instructions, safety signage and safety manuals
	SA2. Read the usage of various safety tools and equipments
	Writing skills
	The user/individual on the job needs to know and understand how to:
SA3. Take notes on descriptions and details of various safety precautions and procedures as instructed	
B. Professional Skills	Communication Skills
	The user/individual on the job needs to know and understand how to:
	SA4. Communicate supervisor about the work safety issues
	SA5. Receive instructions from supervisor on minimizing the accidental risks
	SA6. Communicate co-workers about the precautions to be taken for accident free work
	Decision Making skills
The user/individual on the job needs to know and understand how to:	
SB1. Select appropriate safety tools and equipments	
Plan and Organize	
The user/individual on the job needs to know and understand how to:	
SB2. Improve work processes by adopting best safety practices	
Customer centricity	
The user/individual on the job needs to know and understand how to:	
SB3. Coordinate with different departments on briefing the safety aspects	
SB4. Guide the team members on use of various safety tools and equipments	
Problem solving	



HCS/N9902

Maintain safe work environment

	The user/individual on the job needs to know and understand how to: SB5. Improve work processes by adopting best safety practices
	Analytical thinking
	The user/individual on the job needs to know and understand how to: SB6. Analyse the usage of appropriate tools and consumables
	Critical thinking
C. Technical Skills	The user/individual on the job needs to know and understand how to: SB7. Spot errors and any other disruptions and communicate with solutions
	Handling tools, equipments and chemicals
	The user/individual on the job needs to know and understand how to: SC1. Use safety equipments such as fire extinguisher during fire accidents SC2. Store chemicals and tools in a safe way SC3. Use tools and equipments without causing any injury to fellow workers





HCS/N9902

Maintain safe work environment

NOS Version Control

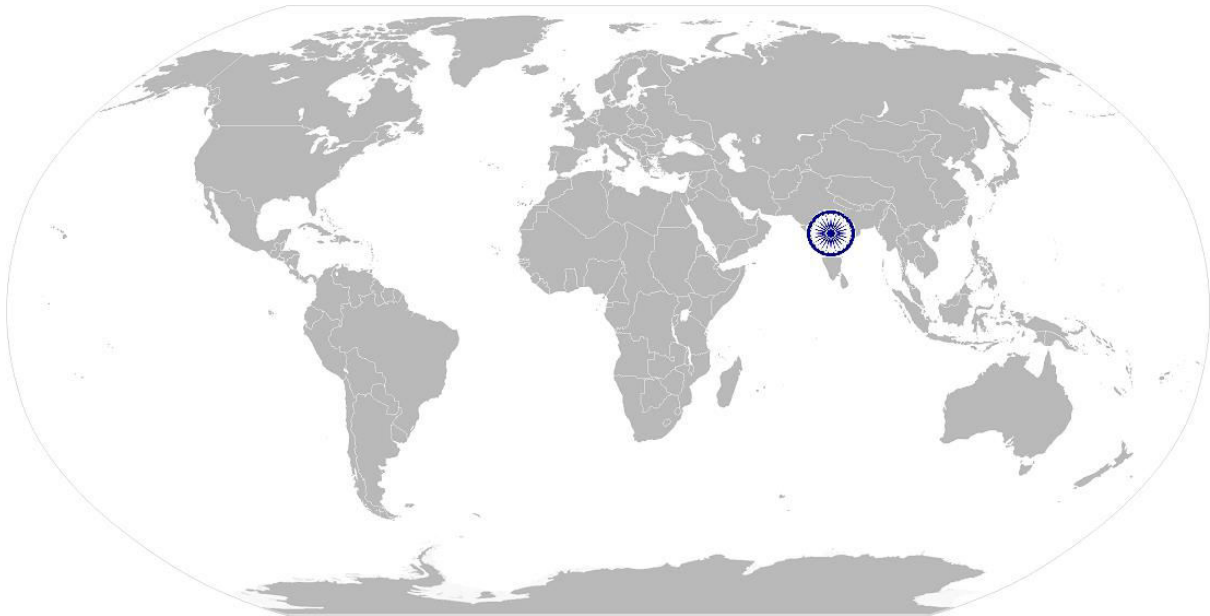
NOS Code	HCS/N9902		
Credits(NSQF)	TBD	Version number	1.0
Industry	Handicrafts and Carpet	Drafted on	23/02/15
Industry Sub-sector	Handicrafts (Ceramics), Handicrafts (Fashion Jewellery), Handicrafts (Stonecraft), Glassware, Metalware	Last reviewed on	23/03/18
Occupation	Production Management, Research and Development, Mixing and Milling, Moulding, Finishing and Painting, Pre-Production, Furnace Operation, Quality Check, Production, Pre - Crafting, Stone Crafting, Mixing, Moulding, Cutting, Smoothing, Finishing, Designing, Metal Casting and Stamping, Metal Craft Making, Cleaning/Polishing/Buffing, Painting and Plating, Packing, Marketing and Merchandising	Next review date	23/03/20



HCS/N9903

Maintain personal health

National Occupational Standard



Overview

This unit is about managing personal health at work place.



HCS/N9903

Maintain personal health

Unit Code	HCS /N9903
Unit Title (Task)	Maintain personal health
Description	This OS unit is about managing personal health at work place.
Scope	This unit/ task covers the following: <ul style="list-style-type: none"> • Adopt healthy work practices • Achieve work productivity while maintaining health
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Adopt healthy work practices	To be competent, the user/individual on the job must be able to: PC1. Protect mouth and nose with a dust mask while working and change the same when required PC2. Follow work instructions strictly to reduce the amount of pollution at the work place PC3. Protect eyes while working, using proper personal protective equipment and maintaining the same as per work standard PC4. Protect oneself from blisters, scratches and cuts PC5. Undergo preventive health checkups at regular intervals PC6. Take prompt treatment from the doctor in case of illness PC7. Follow SOPs for dealing with blisters, scratches, accidental fires or any other type of emergencies at work
Achieve work productivity while maintaining health	PC8. Ensure the absence of no productivity loss or absenteeism from work due to illness PC9. Ensure no long term ill effect on the personal health
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Company's policies on personal health and occupational hazard management KA2. Company's HR policies KA3. Company's reporting structure KA4. Company's emergency evacuation procedure
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Health risks to the worker at the work place KB2. Healthy work practices KB3. How to perform the duties in a way to minimize pollution at the work place KB4. What personal protective equipments should be worn and how it is cared for KB5. Safe disposal methods for waste KB6. How to provide the first aid treatment at workplace KB7. Emergency procedures to be followed in case of an mishap such as fire accidents etc.



HCS/N9903

Maintain personal health

Skills (S)	
A. Core Skills/ Generic Skills	Reading skills
	The user/ individual on the job needs to know and understand how to: SA1. Read personal health instructions and manual SA2. Read the usage of various hand tools and personal protection equipments
	Writing skills
	The user/ individual on the job needs to know and understand how to: SA3. Take notes on descriptions and details of various personal health maintenance procedures
	Communication Skills
	The user/ individual on the job needs to know and understand how to: SA4. Communicate with supervisor about the physical symptoms SA5. Receive instructions from doctor and supervisor on medical care
B. Professional Skills	Decision Making
	The user/ individual on the job needs to know and understand how to: SB1. Select appropriate hand tools and personal protection equipments SB2. Change personal protection equipments during the work SB3. Identify first aid needs in case and of an injury
	Plan and organize
	The user/ individual on the job needs to know and understand how to: SB4. Select appropriate hand tools and personal protection equipments SB5. Change personal protection equipments during the work
	Problem solving
	The user/ individual on the job needs to know and understand how to: SB6. Improve work processes by interacting with others and adopting best practices
	Analytical thinking
	The user/ individual on the job needs to know and understand how to: SB7. Resolve recurring health hazards
	Critical thinking
The user/ individual on the job needs to know and understand how to: SB8. Spot any health hazards and report and communicate with solutions	



NOS

National Occupational Standards



HCS/N9903

Maintain personal health

NOS Version Control

NOS Code	HCS/N9903		
Credits(NSQF)	TBD	Version number	1.0
Industry	Handicrafts and Carpet	Drafted on	23/02/15
Industry Sub-sector	Handicrafts (Ceramics), Handicrafts (Fashion Jewellery), Handicrafts (Stonecraft), Glassware, Metalware	Last reviewed on	23/03/18
Occupation	Production Management, Research and Development, Mixing and Milling, Moulding, Finishing and Painting, Pre-Production, Furnace Operation, Quality Check, Production, Pre - Crafting, Stone Crafting, Mixing, Moulding, Cutting, Smoothing, Finishing, Designing, Metal Casting and Stamping, Metal Craft Making, Cleaning/Polishing/Buffing, Painting and Plating, Packing, Marketing and Merchandising	Next review date	23/03/20



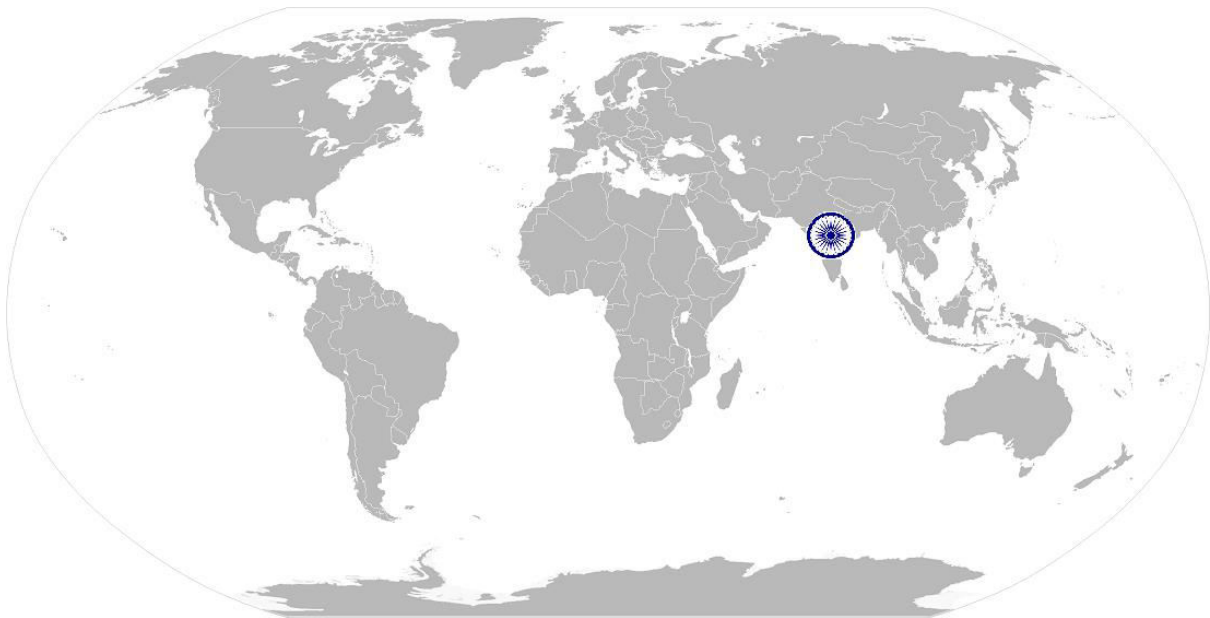
HCS/N9904

NOS
National Occupational Standards

Basic business management



National Occupational Standard



Overview

This unit is about successful basic business management in handicraft units.



HCS/N9904

Basic business management

Unit Code	HCS/N9904
Unit Title (Task)	Basic business management
Description	This OS unit is about basic business management in handicraft units. This OS unit is to aid in successful management of business.
Scope	This unit/ task covers the following: <ul style="list-style-type: none"> • People management • Product planning • Procurement of raw materials • Market interfacing • Financial management • Record keeping
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
People management	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. Allot work to the employees of the unit according to their skill and experience PC2. Train the employees of his/her unit with the appropriate skills required to make market relevant and quality products PC3. Motivate the employees PC4. Handle the grievances/issues that are raised by the employees PC5. Manage the employee expectations
Product planning	<ul style="list-style-type: none"> PC6. Gather and analyse the cues from the market PC7. Ascertain the customer preference PC8. Create product lines based on current market preference PC9. Create product lines that are unique and able to price high PC10. Price the products according to market trends PC11. Decide the best way to market the product lines
Procurement of raw materials	<ul style="list-style-type: none"> PC12. List out raw materials required according to the product lines PC13. Ascertain the quantity and the right price to procure the materials PC14. Identify the right locations/agents from where the raw materials can be procured PC15. Negotiate to get the best price PC16. Ensure that quality materials are procured PC17. Ensure that the procured materials are stored in appropriate conditions PC18. Maintain the bills, and record the prices of procurement for future reference PC19. Maintain healthy vendor relationships
Market interfacing	<ul style="list-style-type: none"> PC20. Identify the nearest market PC21. Analyze the prevalent price for product lines PC22. Decide on the most effective means to access the market PC23. Plan for cost effective transportation to the market PC24. Position the product according to market requirements



HCS/N9904

Basic business management

Financial management	PC25. Manage customer expectations PC26. Analyze and ascertain the cost of production PC27. Maintain the book of accounts related to the business PC28. Open and operate a bank account PC29. Identify cost effective means of running business
Record keeping	PC30. Identify various aspects of business that require recording PC31. Create formats for recording PC32. Make various records pertaining to all aspects of business PC33. Maintain business records with periodic updation PC34. Maintain necessary documents as per local government and regulatory requirement PC35. Analyze the records and glean various trends from the same
Knowledge and Understanding (K)	
A. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> KA1. Interpersonal skills and communication with cross section of stakeholders KA2. Basics of accounting KA3. Basics of banking KA4. Costing principles KA5. Product and craft knowledge, including material and tools requirement KA6. How to gather market intelligence KA7. Various transportation means and implication on costing KA8. Various product lines that can be created depending on sector of operation KA9. Basic record keeping techniques KA10. Basic laws, rules, regulations , etc. with reference to business KA11. Vendor management and development KA12. Pricing techniques KA13. Business profitability assessment
Skills (S)	
A. Core Skills/ Generic Skills	Reading skills
	The individual on the job needs to know and understand how to: SA1. Read about various products and keep abreast of market trends
	Writing skills
	The individual on the job needs to know and understand how to: SA2. Document various aspects of business SA3. Write descriptions and details about investment, expenditures and sale
	Communication skills
	The individual on the job needs to know and understand how to: SA4. Interact with employees to work efficiently SA5. Communicate and manage vendors SA6. Interface with fellow entrepreneurs to exchange ideas on the business SA7. Communicate with the customers SA8. Comprehend information shared by various stakeholders



HCS/N9904

Basic business management

B. Professional Skills	Decision making skills
	The individual on the job needs to know and understand how to: SB1. Finalize the product lines SB2. Fix the appropriate price SB3. Hire the employees with appropriate skill set and experience SB4. Predict the profit margin to be achieved by the business SB5. Decide on which market segment to target
	Plan and organize
	The individual on the job needs to know and understand how to: SB6. Schedule production cycles SB7. Estimate resources SB8. Schedule market visits
	Customer centricity
	The individual on the job needs to know and understand how to: SB9. Gather information on customer preference and taste SB10. Interact with various types of customers and understand the trends
	Problem solving
	The individual on the job needs to know and understand how to: SB11. Analyze and solve conflicts and problems pertaining to the business SB12. Ensure that the problems do not arise repeatedly SB13. Anticipate various problems/challenges that can crop up
	Analytical thinking
	The individual on the job needs to know and understand how to: SB14. Analyse the market for increasing the sales
	Critical thinking
	The individual on the job needs to know and understand how to: SB15. Tap new markets SB16. Introduce new product lines to create markets



HCS/N9904

Basic business management

NOS Version Control

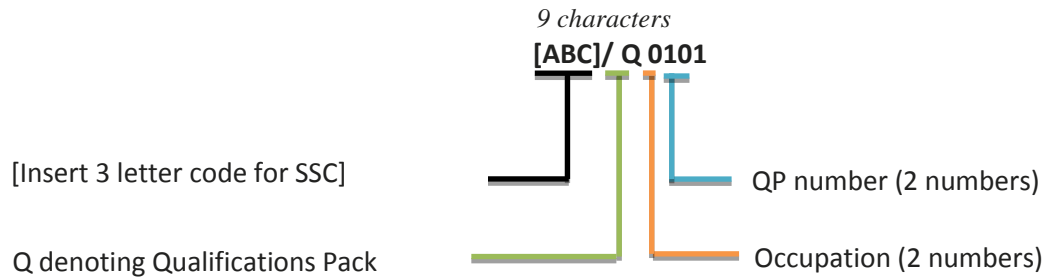
NOS Code	HCS/N9904		
Credits(NSQF)	TBD	Version number	1.0
Industry	Handicrafts and Carpet	Drafted on	23/02/15
Industry Sub-sector	Handicrafts (Ceramics), Handicrafts (Fashion Jewellery), Handicrafts (Stonecraft), Glassware, Metalware	Last reviewed on	23/03/18
Occupation	Production Management, Research and Development, Mixing and Milling, Moulding, Finishing and Painting, Pre-Production, Furnance Operation, Production, Pre – Crafting, Stone Crafting, Mixing, Smoothing, Finishing, Designing, Metal Casting and Stamping, Metal Craft Making, Cleaning/Polishing/Buffing, Painting and Plating, Marketing and Merchandising	Next review date	23/03/20



Annexure

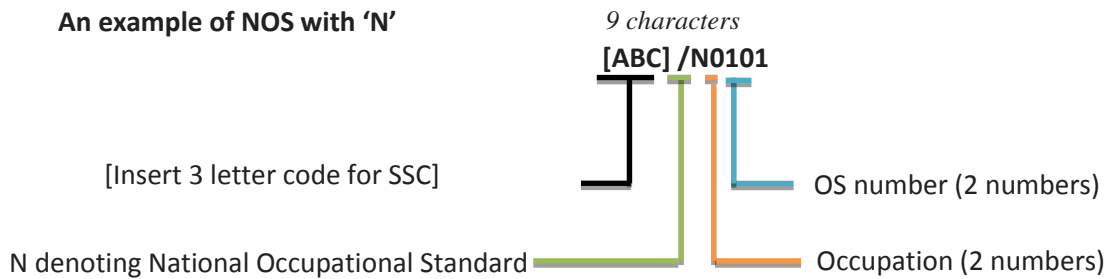
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'





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

Sub-sector	Range of Occupation numbers
Ceramics	01 – 10
Fashion Jewellery	11 - 13
Stoneware	14 - 19
Glassware	20 - 27
Metalware crafts	28 - 37
Leather crafts	38 - 43
Paper Mache	44 - 49
Carpets & rugs	50 – 59
Horn bone & shell craft	60 – 65
Wood ware, dolls & toys	66 – 71
Hand printed, Embroidered / knitted & crocheted textiles	72 – 77
Agarbatti	78 – 82
Paper crafts	83 – 86
NER crafts	87 – 92
Miscellaneous crafts	93 - 95
Generic Occupation	96 – 99

Sequence	Description	Example
Three letters	Handicrafts and Carpet Sector Skill Council	HCS
Slash	/	/
Next letter	Whether QP or NOS	Q
Next two numbers	Occupation code	01
Next two numbers	OS number	01



CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role : Furnace Operator

Qualification Pack : HCS/Q2101

Sector Skill Council : Handicrafts and Carpet

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 each PC.
2. Each NOS will be assessed both for theoretical knowledge and practical
3. The assessment will be based on knowledge bank of questions created by the SSC.
4. Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/training center
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

Total Mark: 500				Marks Allocation	
Assessment Outcomes	Performance Criteria	Total Marks	Out of	Theory	Skills Practical
HCS/N2103 Carry out furnace operations	PC1. Operate the furnace with understanding of controls and specifications	100	4	1	3
	PC2. Understand the temperature requirement as per the product requirements and provide specifications		4	1	3
	PC3. Maintain temperature distribution inside the furnace at the optimum level		4	1	3
	PC4. Monitor the batch movement inside the furnace		4	1	3
	PC5. Control the cooling air inside the furnace		4	1	3
	PC6. Control the fuel at each port through burners		4	1	3
	PC7. Operate the air compressor		4	1	3
	PC8. Control the preheating of secondary gas		4	1	3
	PC9. Monitor and control the flow of exhaust gas		4	1	3
	PC10. Understand and follow the procedure for exhaust gas recovery		4	1	3
	PC11. Adjust burner capacity		4	1	3
	PC12. Control the volume of primary air		4	1	3
	PC13. Control the flame rotary angle as per requirement		4	1	3
	PC14. Achieve the required flame atomising pressure		4	1	3
	PC15. Adjust and control the secondary air		4	1	3
	PC16. Understand the insulation for the melting		4	1	3



Qualifications Pack For Furnace Operator

	chamber				
	PC17. Understand crown insulation		4	1	3
	PC18. Understand side wall insulation		4	1	3
	PC19. Prevent cold air from entering through inlet opening		4	1	3
	PC20. Ensure that outlet opening is closed during operation		4	1	3
	PC21. Operate the furnace and ensure periodical targets are met as per supervisor instructions		4	1	3
	PC22. Deduce any maintenance requirement and ensure that the furnace is operational all the time		4	1	3
	PC23. Follow the standard operating procedure during furnace operation and avoid any damage		4	1	3
	PC24. Follow standard safety guidelines and mention dos and don'ts for other employees who comes near furnace operation area		4	1	3
	PC25. Ensure adequate fuel supply by informing procurement assistant to avoid work delay		4	1	3
	TOTAL POINTS		100	25	75
HCS/N9901 Coordinate with colleagues and work as a team	PC1. Receive job order and instructions from reporting supervisor	100	4	3	1
	PC2. Understand the work output requirements, targets, performance indicators and incentives		5	4	1
	PC3. Deliver quality work on time and report any anticipated reasons for delays		5	1	4
	PC4. Report on any grievances, production defects and any potential hazards		4	2	2
	PC5. Communicate on process flow improvements		4	2	2
	PC6. Communicate regarding maintenance and repair schedule proactively to the supervisor		4	1	3
	PC7. Receive feedback on work standards		4	2	2
	PC8. Interact and clarify doubts on design, usage of materials & tools, quality & standards compliance, etc.		5	2	3
	PC9. Report in time for shortage or need of raw materials		4	1	3
	PC10. Handover completed work to supervisor		4	2	2



Qualifications Pack For Furnace Operator

	PC11. Communicate with colleagues from within and other departments, clearly and effectively on all aspects to carry out the work among the team		5	2	3
	PC12. Maintain the etiquettes, use polite language, demonstrate responsible and disciplined behaviours towards colleagues		5	2	3
	PC13. Interact with colleagues from different functions and understand the nature of their work		4	2	2
	PC14. Put team over individual goals and multi-task or share work where necessary supporting the colleagues		4	2	2
	PC15. Resolve conflicts and ensure smooth workflow		4	1	3
	PC16. Interact and understand the production requirement for the day from the previous and successive processing department and work accordingly		4	1	3
	PC17. Communicate and discuss work flow related difficulties in order to find solutions with mutual agreement		4	1	3
	PC18. Receive feedback from Quality Control and rework in order to complete work on time		5	1	4
	PC19. Share information with colleagues to enable efficient delivery of work		6	3	3
	PC20. Highlight any error of colleagues, help to rectify and ensure quality output		4	2	2
	PC21. Work with cooperation, coordination, communication and collaboration towards the shared goals, supporting each other's performance		4	1	3
	PC22. Document all the details accurately relating to one's role as required		4	1	3
	PC23. Report on the completed work and keep it in records		4	1	3
	TOTAL POINTS		100	40	60
HCS/N9902 Maintain safe work environment	PC1. Comply with safety procedures while on work to prevent accidents	100	8	2	6
	PC2. Take adequate safety measures while handling materials, chemicals and tools		8	2	6
	PC3. Wear appropriate personal protective gears such as gloves, protective goggles, masks etc. while working		8	2	6



Qualifications Pack For Furnace Operator

	PC4. Undertake basic safety checks before operation of all tools and electrical equipments		9	2	7
	PC5. Wear appropriate and recommended clothing as per the work environment		9	2	7
	PC6. Follow recommended material handling procedure to control material and personal damage		8	2	6
	PC7. Perform all procedures as per company's work instructions for controlling operational risk		8	4	4
	PC8. Perform the duties in a manner which minimizes environmental damage		6	2	4
	PC9. Dispose of waste safely and correctly in a designated area as per company's SOP		8	2	6
	PC10. Report any accidents, incidents or problems without delay to the supervisor and take necessary immediate action to reduce further danger		8	4	4
	PC11. Ensure zero accident at workplace		10	2	8
	PC12. Adhere to safety standards and ensure no material damage		10	2	8
	TOTAL POINTS		100	28	72
HCS/N9903 Maintain personal health	PC1. Protect mouth and nose with a dust mask while working and change the same when required	100	12	4	8
	PC2. Follow work instructions strictly to reduce the amount of pollution at the work place		10	2	8
	PC3. Protect eyes while working, using proper personal protective equipment and maintaining the same as per work standard		10	2	8
	PC4. Protect oneself from blisters, scratches and cuts		10	2	8
	PC5. Undergo preventive health checkups at regular intervals		10	2	8
	PC6. Take prompt treatment from the doctor in case of illness		11	3	8
	PC7. Follow SOPs for dealing with blisters, scratches, accidental fires or any other type of emergencies at work		11	4	7
	PC8. Ensure the absence of no productivity loss or absenteeism from work due to illness		13	3	10
	PC9. Ensure no long term ill effect on the personal health		13	3	10
	TOTAL POINTS			100	25



Qualifications Pack For Furnace Operator

HCS/N9904 Basic business management	PC1. Allot work to the employees of the unit according to their skill and experience	100	3	1	2
	PC2. Train the employees of his/her unit with the appropriate skills required to make market relevant and quality products		3	1	2
	PC3. Motivate the employees		2	1	1
	PC4. Handle the grievances/issues that are raised by the employees		2	1	1
	PC5. Manage the employee expectations		2	1	1
	PC6. Gather and analyse the cues from the market		2	1	1
	PC7. Ascertain the customer preference		3	1	2
	PC8. Create product lines based on current market preference		3	1	2
	PC9. Create product lines that are unique and able to price high		3	1	2
	PC10. Price the products according to market trends		3	1	2
	PC11. Decide the best way to market the product lines		3	1	2
	PC12. List out raw materials required according to the product lines		2	0	2
	PC13. Ascertain the quantity and the right price to procure the materials		3	1	2
	PC14. Identify the right locations/agents from where the raw materials can be procured		3	1	2
	PC15. Negotiate to get the best price		3	0	3
	PC16. Ensure that quality materials are procured		4	1	3
	PC17. Ensure that the procured materials are stored in appropriate conditions		3	1	2
	PC18. Maintain the bills, and record the prices of procurement for future reference		3	1	2
	PC19. Maintain healthy vendor relationships		3	1	2
	PC20. Identify the nearest market		3	1	2
	PC21. Analyze the prevalent price for product lines		3	2	1
	PC22. Decide on the most effective means to access the market		2	1	1
	PC23. Plan for cost effective transportation to the market		3	1	2
	PC24. Position the product according to market requirements		3	1	2
	PC25. Manage customer expectations		2	0	2
	PC26. Analyze and ascertain the cost of production		3	1	2



Qualifications Pack For Furnace Operator

PC27. Maintain the book of accounts related to the business	3	1	2
PC28. Open and operate a bank account	4	2	2
PC29. Identify cost effective means of running business	3	1	2
PC30. Identify various aspects of business that require recording	3	2	1
PC31. Create formats for recording	3	2	1
PC32. Make various records pertaining to all aspects of business	3	2	1
PC33. Maintain business records with periodic updation	3	2	1
PC34. Maintain necessary documents as per local government and regulatory requirement	3	2	1
PC35. Analyze the records and glean various trends from the same	3	2	1
TOTAL POINTS	100	40	60