

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR TEXTILE SECTOR

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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Contents

1. Introduction and Contacts.....P.1
2. Qualifications Pack.....P.2
3. Glossary of Key Terms.....P.3
4. NOS Units.....P.5

Introduction

Qualifications Pack – Stenter Machine Operator

SECTOR: TEXTILE

SUB-SECTOR: PROCESSING

OCCUPATION: FINISHING

REFERENCE ID: TSC/Q 3901

ALIGNED TO: NCO-2004 / 8264.81

Brief Job Description: A Stenter Machine Operator is responsible to do the specified job of drying, heat setting and finishing of fabric with proper control of parameters to get the desired effect. This job requires the individual to have thorough knowledge of process flow and material flow in a processing mill for fabric production and should know the important functions and operations of a Stenter machine.

Personal Attributes: A Stenter Machine Operator should have good eyesight, matching skills and vision. He/she should also have good interpersonal skills.

Job Details	Qualifications Pack Code	TSC/ Q 5401		
	Job Role	Stenter Machine Operator		
	Credits (NSQF)	TBD	Version number	1.0
	Sector	Textile	Drafted on	15/12/15
	Sub-sector	Processing	Last reviewed on	25/02/15
	Occupation	Finishing	Next review date	01/03/16
Job Role	StenterMachine Operator			
Role Description	To carry out the process of drying, heat setting and finishing of fabric using a Stenter Machine, as specified under Job Order			
NSQF level	4			
Minimum Educational Qualifications	10 th standard, preferably			
Maximum Educational Qualifications	N/A			
Training (Suggested but not mandatory)	Three to six months of training in textile processing.			
Experience	Preferably 2-3 years in textile processing			
National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> TSC/N 5401 Taking charge of shift and handing over shift to operator TSC/N 5402 Operating the Stenter Machine TSC/N 5403 Preparing the finishing chemicals TSC/ N 9001 Maintain work area,tools and machines TSC/ N 9002 Working in a team TSC/ N 9003 Maintain health, safety and security at workplace TSC/ N 9004 Comply with industry and organizational requirement <p>Optional: Not Applicable</p>			
Performance Criteria	As described in the relevant OS units			

Keywords /Terms	Description
Definitions	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 to fulfill the achieving the objectives of the function.
Job role	Job role defines a 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 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.
National Occupational Standards (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(QP)	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 OS unit, which can be denoted with either an 'O' or 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.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
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/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.
Helpdesk	Helpdesk is an entity to which the customers will report their IT problems. IT Service Helpdesk Attendant is responsible for managing the helpdesk.
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
TSC	Tectile Sector Skill Council
NSDC	National Skill Development Corporation

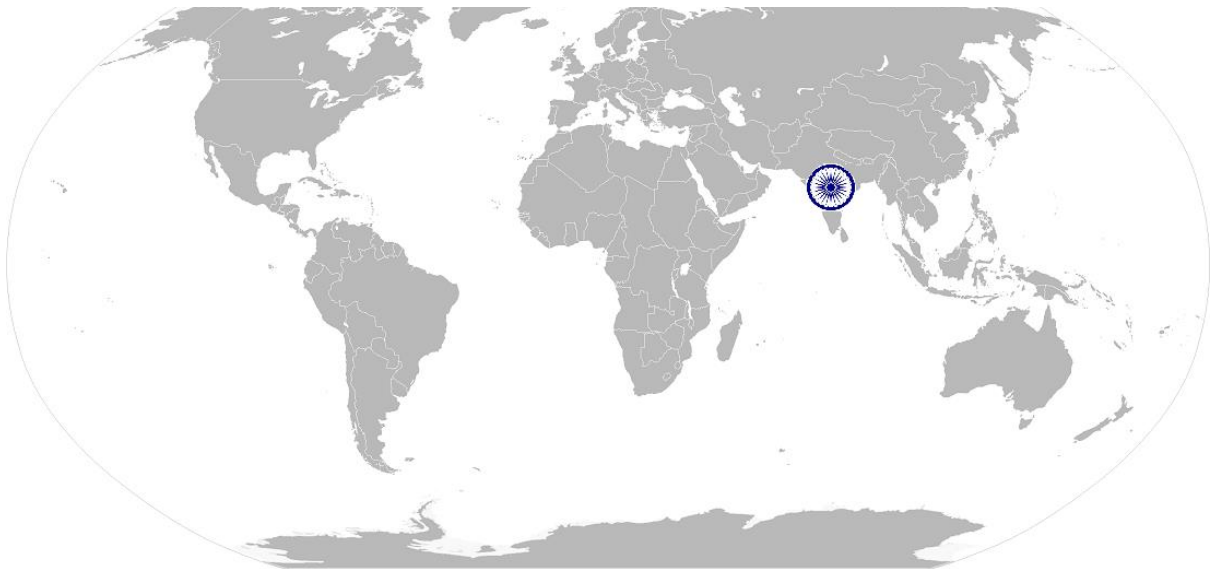
Acronyms



TSC/N 5401

Taking charge of shift and handing over shift to operator

National Occupational Standard



Overview

This unit is about taking charge of shift and handing over shift to operator

TSC/N 5401

Taking charge of shift and handing over shift to operator

National Occupational Standard

Unit Code	TSC/N 5401
Unit Title (Task)	Taking charge of shift and handing over shift to operator
Description	This unit is about taking charge of shift from previous shift operator and relieving the responsibilities to the next shift operator
Scope	This unit/task covers the following: <ul style="list-style-type: none"> ▪ taking charge of shift ▪ handing over shift
Elements	Performance Criteria
Taking charge of shift	<p>To be competent, you must be able to:</p> <p>PC1. come at least 10 - 15 minutes earlier to the work place</p> <p>PC2. bring the necessary operational tools to the department</p> <p>PC3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality or production or spare or safety or any other specific instruction etc.</p> <p>PC4. understand the fabric being processed & process running on the machine</p> <p>PC5. ensure the technical details are mentioned on the job card display on the machine</p> <p>PC6. check for the availability of the spare trolley for unloading the fabric</p> <p>PC7. check the next batch to be processed is ready near the machine</p> <p>PC8. ensure the required dyes & chemicals are already weighed & prepared</p> <p>PC9. check the cleanliness of the machines & other work areas</p> <p>PC10. question the previous shift operator for any deviation in the above and bring the same to the knowledge of his/ her shift superior as well that of the previous shift as well.</p>
Handing over shift	<p>To be competent, you must be able to:</p> <p>PC11. hand over the shift to the incoming operator in a proper manner</p> <p>PC12. ensure in providing the details regarding fabric quality & the process running on the machine</p> <p>PC13. to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine.</p> <p>PC14. ensure the empty trolley is near the machine for unloading the fabric</p> <p>PC15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly</p> <p>PC16. ensure the required dyes & chemicals for the next lot or next process are weighed & prepared</p> <p>PC17. get clearance from the incoming counterpart before leaving the work spot</p> <p>PC18. report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift</p> <p>PC19. ensure the shift has to be properly handed over to the incoming shift operator</p> <p>PC20. report to his/ her shift superior about the quality / production / safety</p>

TSC/N 5401

Taking charge of shift and handing over shift to operator

	<p>issues/ any other issue faced in his/ her shift and should leave the department only after getting concurrence for the same from his/ her superiors</p> <p>PC21. collect the wastes from waste collection bags, weigh them and transport to storage area</p> <p>PC22. ensure the machine and its work place is clean</p>
Knowledge and Understanding (K)	
A. Technical Knowledge	<p>You need to know and understand:</p> <p>KA1. the importance of quality & productivity</p> <p>KA2. various defects in the fabric due to yarn, weaving or processing</p> <p>KA3. reasons for various defects in the fabric due to processing & their remedy</p> <p>KA4. process flow in a processing unit</p> <p>KA5. material flow in a processing unit</p> <p>KA6. functions of various controls of the machine</p> <p>KA7. importance of material handling and types of material handling equipment being used</p> <p>KA8. importance of cleanliness at workplace</p> <p>KA9. functions and methodology for operating different material handling equipment</p> <p>KA10. the functions of various alarm signals</p> <p>KA11. guidelines for operating the machine</p> <p>KA12. guidelines for taking charge of shift from previous shift operator</p> <p>KA13. guidelines for handing over the shift to the next shift operator</p> <p>KA14. safety procedures to be followed while operating the machine</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>You need to know and understand how to:</p> <p>SA1. write clear and short sentences</p>
	Reading Skills
	<p>You need to know and understand how to:</p> <p>SA2. comprehend written instructions</p>
	Oral Communication (Listening and Speaking skills)
	<p>You need to know and understand how to:</p> <p>SA3. communicate with supervisor appropriately</p> <p>SA4. talk to others to convey information effectively</p>
B. Professional Skills	Problem Solving
	<p>You need to know and understand how to:</p> <p>SB1. apply problem-solving approaches in different situations</p> <p>SB2. refer anomalies to the supervisor</p> <p>SB3. seek clarification on problems from others</p>
	Attention to Detail
	<p>You need to know and understand how to:</p> <p>SB4. apply good attention to detail</p> <p>SB5. check your work is complete and free from errors</p>

TSC/N 5401

Taking charge of shift and handing over shift to operator

C. Technical Skills	You need to know and understand how to: SC1. operate the machine SC2. operate various valve & traps SC3. operate different material handling tools and equipment SC4. check the quality of processed fabric SC5. maintain cleanliness at work place
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TSC/N 5401

Taking charge of shift and handing over shift to operator

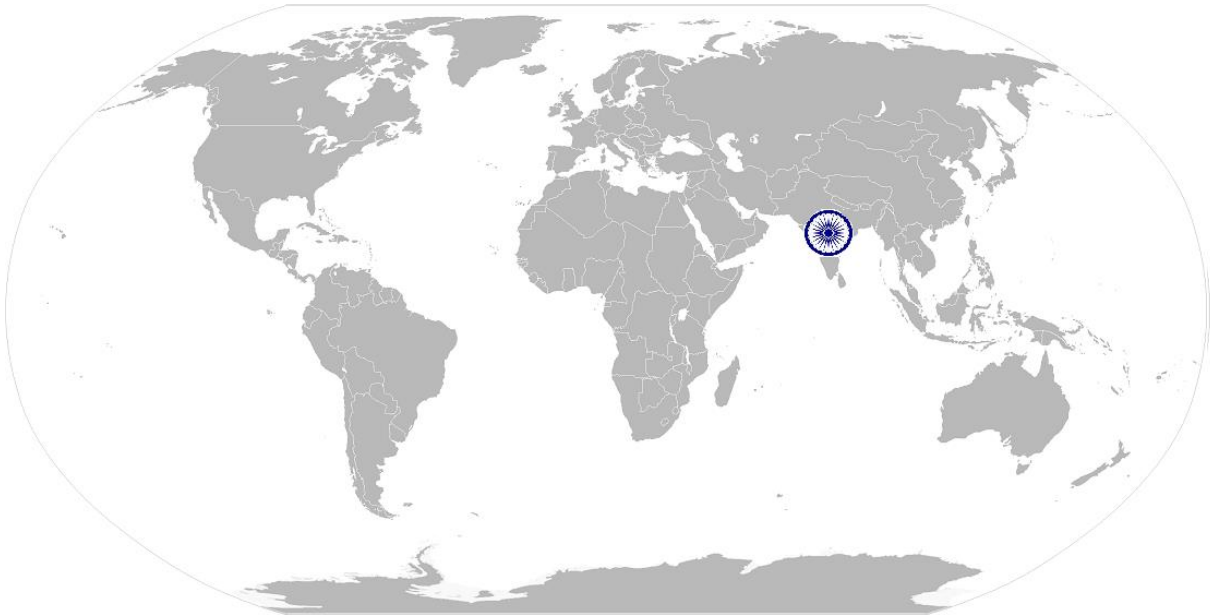
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NOS Code	TSC/N 5401		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Finishing	Next review date	01/03/16

TSC/N 5402

Operating the Stenter Machine

National Occupational Standard



Overview

This unit is about operating the Stenter Machine

TSC/N 5402

Operating the Stenter Machine

National Occupational Standard

nit Code	TSC/N 5402
Unit Title (Task)	Operating the Folding Machine
Description	This unit is about operating the StenterMachine
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> ▪ carry out preparatory activities for operations in the machine ▪ operate the machine for the specified task as per work order ▪ clean the machine & carryout preventive maintenance activities
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Carry out preparatory activities for operations in the machine	<p>To be competent, you must be able to:</p> <p>PC1. ensure that the machine is clean</p> <p>PC2. feed the fabric from the batch or trolley in the center of the machine</p> <p>PC3. ensure fabric is crease-less and evenly fed into the machine</p>
Operate the machine for specified tasks as per Work Order	<p>PC4. know the operations of the machine</p> <p>PC5. read & understand the process being followed to do the task</p> <p>PC6. set the width maximum and minimum once a day keep even tension on fabric throughout the process</p> <p>PC7. keep optimum pressure of the squeezer rolls to get specified results</p> <p>PC8. set the required temp & fan speeds in all chambers</p> <p>PC9. feed the fabric to the stenter chain</p> <p>PC10. adjust the overfeed device as per the requirement of the fabric</p> <p>PC11. start the machine & take out the fabric at the delivery end</p> <p>PC12. check various control parameters such as temp, width, mangle pressure & machine speed at regular interval</p>
Clean the machine on a regular basis and carryout preventive maintenance activities	<p>PC13. make sure the machine is kept clean at all times ,before loading, while running & after unloading the fabric</p> <p>PC14. follow the preventive maintenance schedule & ensure the machine is running smoothly</p> <p>PC15. check that all controls are functioning properly</p> <p>PC16. ensure the right quality of water , steam & air is availablefor proper functioning of machine</p> <p>PC17. cool down the machine after completion of job</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	<p>You need to know and understand:</p> <p>KA1. standard operating procedure (SOP) and regulations in processing unit</p> <p>KA2. procedure followed to get the final output in processing unit</p> <p>KA3. safe working practices to be adopted in processing unit</p> <p>KA4. how to report to the supervisor or higher authority about any grievances faced</p>
B. Technical Knowledge	<p>You need to know and understand:</p> <p>KB1. importance of discipline & punctuality</p> <p>KB2. importance of take over & handover in achieving quality & productivity</p>

TSC/N 5402

Operating the Stenter Machine

	<p>KB3. any abnormal sound/ noise should be reported to the concerned/ supervisor</p> <p>KB4. type of fiber, yarn and fabric- yarn dyed, piece dyed or printed</p> <p>KB5. knowledge about various controls of machine</p> <p>KB6. knowledge about required finished widths of different qualities</p> <p>KB7. avoiding unnecessary tension on the fabric</p> <p>KB8. moisture contents in the dried / finished fabric</p> <p>KB9. threading the fabric to pin or clip stenter</p> <p>KB10. knowledge about the shrinkage in the finished fabric</p> <p>KB11. knowledge about required optimum mangle pressure for drying & finishing processes</p> <p>KB12. knowledge about various functions of stenter machine</p> <p>KB13. knowledge about required optimum mangle pressure for drying & finishing processes</p> <p>KB14. basic knowledge about drying, heat setting & finishing temp of various products</p> <p>KB15. knowledge & use of overfeed device to achieve the specified task</p> <p>KB16. basic knowledge about moisture contents in the dried or finished fabric for optimum production</p> <p>KB17. wrapping the fabric evenly on the batching device roll or threading it into the trolley</p>
Skills (S)	
	<p>Reading Skills</p> <p>You need to know and understand how to:</p> <p>SA1. read and comprehend written instructions</p> <p>SA2. read any application sent by other colleagues</p> <p>Oral Communication (Listening and Speaking skills)</p> <p>You need to know and understand how to:</p> <p>SA3. communicate with supervisor appropriately</p> <p>SA4. talk to others to convey information effectively</p>
C. Professional Skills	<p>Problem Solving</p> <p>You need to know and understand how to:</p> <p>SB1. identify the real reason of problem faced</p> <p>SB2. apply problem-solving approaches in different situations</p> <p>SB3. refer anomalies to the supervisor</p> <p>SB4. seek clarification on problems from others</p> <p>Attention to Detail</p> <p>You need to know and understand how to:</p> <p>SB5. apply good attention to detail</p> <p>SB6. check your work is complete and free from errors</p> <p>SB7. make sure every kind of communication is error free</p>
D. Technical Skills	<p>You need to know and understand :</p> <p>SC1. know the various faults due to yarn, weaving, dyeing, printing and finishing in the fabric</p> <p>SC2. quality/ sort no</p>

TSC/N 5402

Operating the Stenter Machine

	<p>SC3. width of fabric</p> <p>SC4. length & weight</p> <p>SC5. use the correct tools for cleaning the machine</p> <p>SC6. use of edge guide sensors for even & straight feeding of fabric to the machine</p> <p>SC7. proper use of guide rolls & control sensors</p> <p>SC8. basic operation of various types of stenter machines viz. pin, clip etc</p> <p>SC9. understanding of various operations carried out on stenter machine viz; drying, heat setting, finishing etc</p> <p>SC10. operation of various controls of machine</p> <p>SC11. proper use of tensioning devices to get even width & required shrinkage in the fabric</p>
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TSC/N 5402

Operating the Stenter Machine

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NOS Code		TSC/N 5402	
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Finishing	Next review date	01/03/16

National Occupational Standard



Overview

This unit is about preparing the finishing chemical

TSC/N 5403

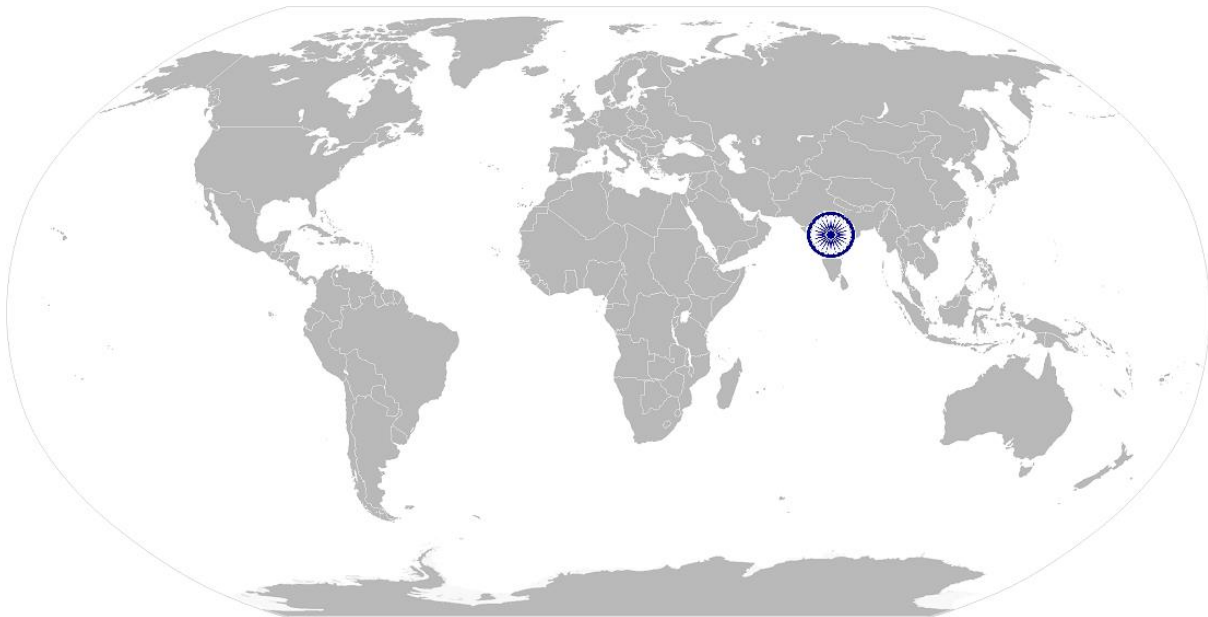
Preparing the finishing chemicals

Unit Code	TSC/N 5403
Unit Title (Task)	Recording the finishing chemicals
Description	This unit is about preparing the finishing chemicals
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> ▪ dissolving and mixing the chemicals ▪ feeding the chemicals in to the mangle trough
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Dissolving and mixing the chemicals	<p>To be competent, you must be able to:</p> <p>PC1. dissolve the pre weighed or dispensed chemicals in the drum</p> <p>PC2. stir & mix the chemicals properly to make a homogenous liquid</p> <p>PC3. adjust the ph, temp & concentration of the mixture as specified in the finishing recipe</p>
Feeding the chemicals into the mangle trough	<p>PC4. feed the chemicals either manually or via pump to the mangle trough</p> <p>PC5. adjust the mangle pressure to get the required pick up</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	<p>You need to know and understand:</p> <p>KA1. procedure followed to get the final output in processing unit</p> <p>KA2. standard operating procedure (SOP) and regulations in processing unit</p> <p>KA3. safe working practices to be adopted in processing unit</p> <p>KA4. how to report to the supervisor or higher authority about any grievances faced</p>
B. Technical Knowledge	<p>You need to know and understand:</p> <p>KB1. use of various mixing tools</p> <p>KB2. handling of various chemicals</p> <p>KB3. effects of pick up on finished fabric</p> <p>KB4. knowledge of various finishing recipes & their use</p>
Skills (S)	
	Reading Skills
	<p>You need to know and understand how to:</p> <p>SA1. read and comprehend written instructions</p> <p>SA2. read any application sent by other colleagues</p>
	Oral Communication (Listening and Speaking skills)
C. Professional Skills	<p>You need to know and understand how to:</p> <p>SA3. communicate with supervisor appropriately</p> <p>SA4. talk to others to convey information effectively</p>
	Problem Solving
	<p>You need to know and understand how to:</p> <p>SB1. identify the real reason of problem faced</p> <p>SB2. apply problem-solving approaches in different situations</p> <p>SB3. refer anomalies to the supervisor</p> <p>SB4. seek clarification on problems from others</p>

TSC/ N 5403

Preparing the finishing chemicals

	<p>Attention to Detail</p> <p>You need to know and understand how to:</p> <p>SB5. apply good attention to detail</p> <p>SB6. check your work is complete and free from errors</p> <p>SB7. make sure every kind of communication is error free</p>
<p>D. Technical Skills</p>	<p>SC1. You need to know and understand :</p> <p>SC2. methods and chemicals used for developing different types of dyestuffs</p> <p>SC3. good matching skills & knowledge about the colours</p>

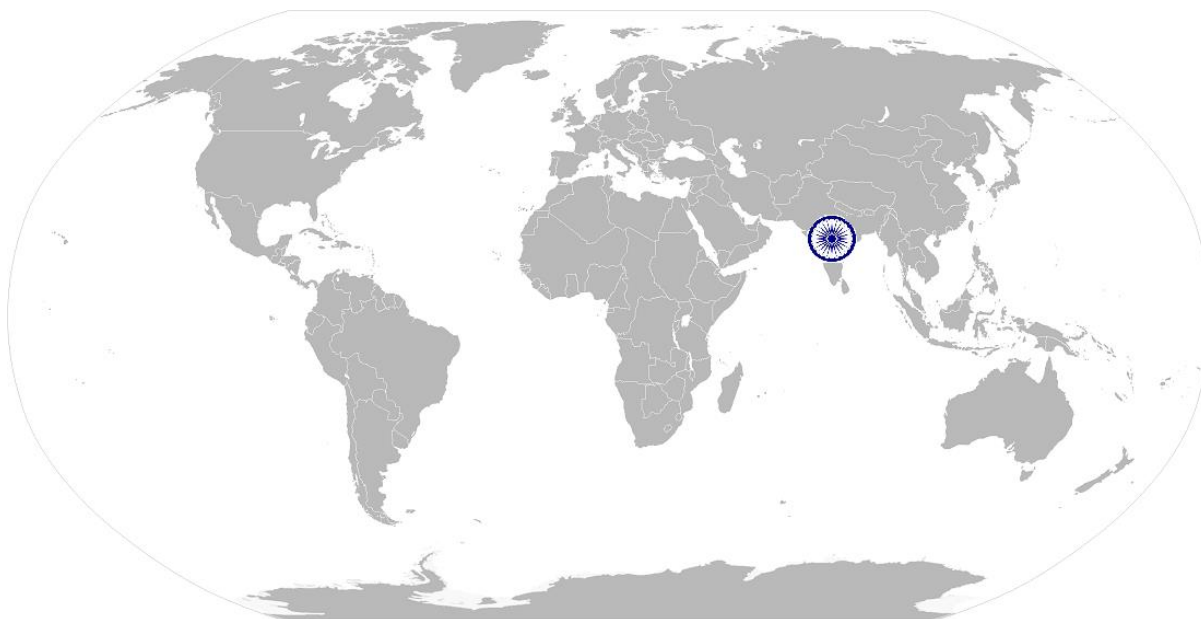


TSC/ N 5403

Preparing the finishing chemicals

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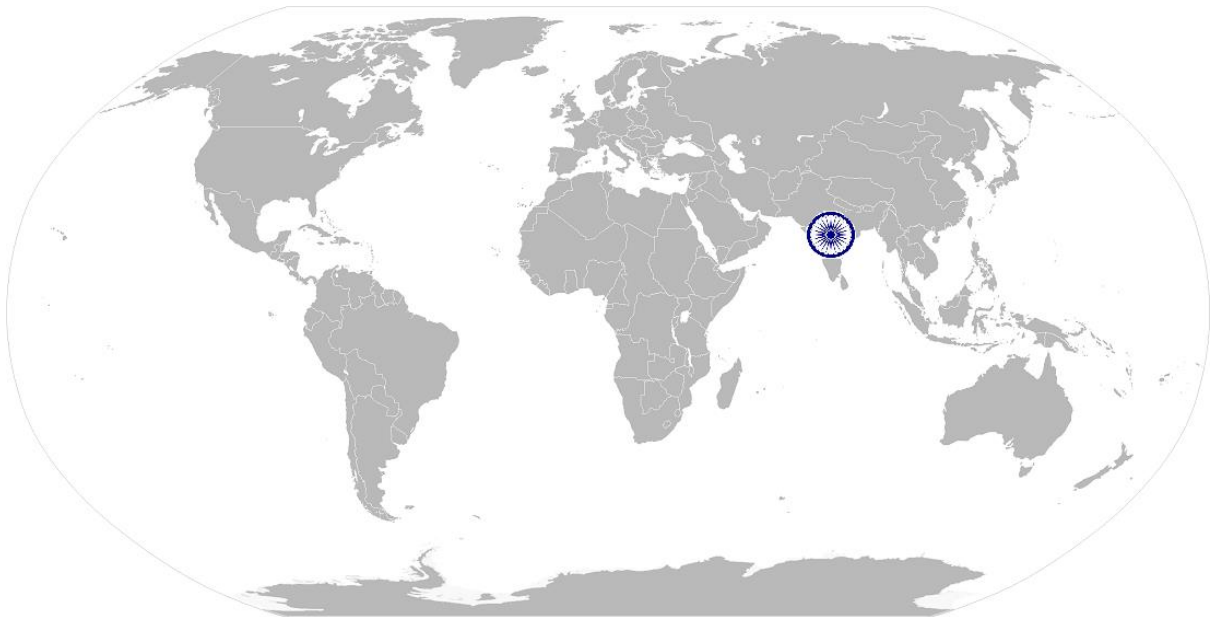
NOS Code	TSC/N 5403		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Finishing	Next review date	01/03/16



TSC/ N9001

Maintaining work area, tools and machines

National Occupational Standard



Overview

This unit is about maintaining work areas and activities to ensure tools and machines are maintained as per norms.

TSC/ N9001

Maintaining work area, tools and machines

Unit Code	TSC/ N9001
Unit Title (Task)	Maintaining work area, tools and machines
Description	This unit provides performance criteria, knowledge & understanding and skills & abilities required to organise/ maintain work areas and activities to ensure tools and machines are maintained as per norms
Scope	This unit/task covers the following: <ul style="list-style-type: none"> ▪ Maintain the work area, tools and machines
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Maintain the work area, tools and machines	<p>To be competent, you must be able to:</p> <p>PC1. handle materials, machinery, equipment and tools with care and use them in the correct way</p> <p>PC2. use correct lifting and handling procedures</p> <p>PC3. use materials to minimize waste</p> <p>PC4. maintain a clean and hazard free working area</p> <p>PC5. maintain tools and equipment</p> <p>PC6. carry out running maintenance within agreed schedules</p> <p>PC7. carry out maintenance and/or cleaning within one's responsibility</p> <p>PC8. report unsafe equipment and other dangerous occurrences</p> <p>PC9. ensure that the correct machine guards are in place</p> <p>PC10. work in a comfortable position with the correct posture</p> <p>PC11. use cleaning equipment and methods appropriate for the work to be carried out</p> <p>PC12. dispose of waste safely in the designated location</p> <p>PC13. store cleaning equipment safely after use</p> <p>PC14. carry out cleaning according to schedules and limits of responsibility</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	<p>You need to know and understand:</p> <p>KA1. personal hygiene and duty of care</p> <p>KA2. safe working practices and organisational procedures</p> <p>KA3. limits of your own responsibility</p> <p>KA4. ways of resolving with problems within the work area</p> <p>KA5. the production process and the specific work activities that relate to the whole process</p> <p>KA6. the importance of effective communication with supervisors</p> <p>KA7. the lines of communication, authority and reporting procedures</p> <p>KA8. the organisation's rules, codes and guidelines (including timekeeping)</p> <p>KA9. the company's quality standards</p> <p>KA10. the importance of complying with written instructions</p> <p>KA11. equipment operating procedures / supervisor's instructions</p>
B. Technical	<p>You need to know and understand:</p> <p>KB1. work instructions and specifications and interpret them accurately</p>

TSC/ N9001

Maintaining work area, tools and machines

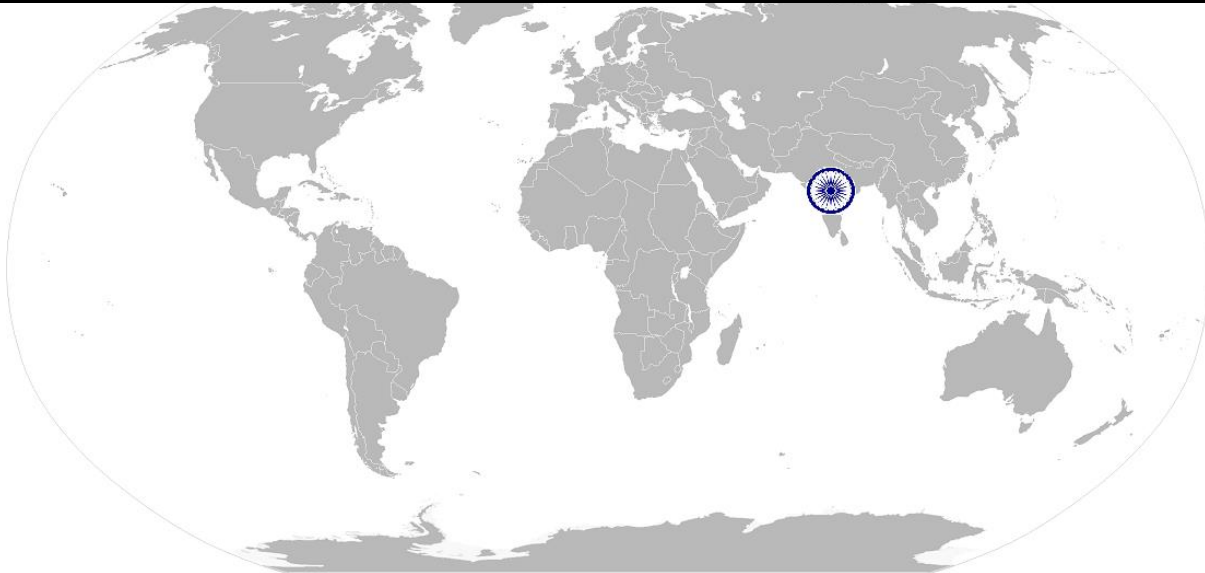
Knowledge	KB2. relation between work role and the overall manufacturing process KB3. hazards likely to be encountered when conducting routine maintenance KB4. the importance of taking action when problems are identified KB5. different ways of minimising waste KB6. the importance of running maintenance and regular cleaning KB7. effects of contamination on products i.e. machine oil, dirt, foreign materials KB8. common faults with equipment and the method to rectify KB9. maintenance procedures KB10. different types of cleaning equipment and substances and their use KB11. safe working practices for cleaning and the method of carrying them out
Skills (S)	
A. Core Skills/ Generic Skills	Reading Skills
	You need to know and understand how to: SA1. read and comprehend written instructions SA2. read any application sent by other colleagues
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to: SA3. communicate with supervisor appropriately SA4. talk to others to convey information effectively
B1. Professional Skills	Problem Solving
	You need to know and understand how to: <ul style="list-style-type: none"> SB1. identify the real reason of problem faced SB2. apply problem-solving approaches in different situations SB3. refer anomalies to the supervisor SB4. seek clarification on problems from others
	Attention to Detail
	You need to know and understand how to: SB5. apply good attention to detail SB6. check your work is complete and free from errors SB7. make sure every kind of communication is error free
C. Technical Skills	You need to know and understand : SC1. communicate effectively SC2. apply leadership skills wherever required SC3. take initiative at the right place SC4. understand the requirement to be creative

TSC/ N9001

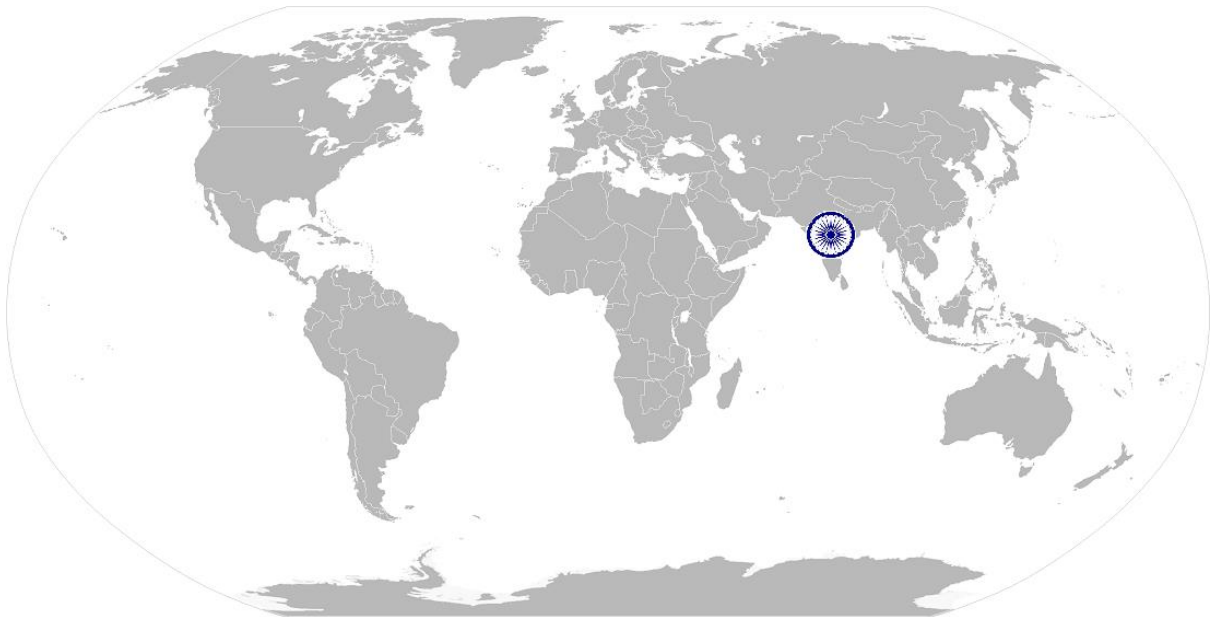
Maintaining work area, tools and machines

NOS Version Control

NOS Code	TSC/ N9001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Finishing	Next review date	01/03/16



National Occupational Standard



Overview

This unit is about working as part of a team in the textile industry.

TSC/ N9002

Working in a team

Unit Code	TSC/ N9002
Unit Title (Task)	Working in a team
Description	This unit is about working as a team member in the role of processing unit tenter in the textile industry
Scope	This unit/task covers the following: <ul style="list-style-type: none"> ▪ commitment and trust ▪ communication ▪ adaptability ▪ creative freedom
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Commitment and trust	To be competent, you must be able to: PC1. be accountable to the own role in whole process PC2. perform all roles with full responsibility PC3. be effective and efficient at workplace
Communication	PC4. properly communicate about company policies PC5. report all problems faced during the process PC6. talk politely with other team members and colleagues PC7. submit daily report of own performance
Adaptability	PC8. adjust in different work situations PC9. give due importance to others' point of view PC10. avoid conflicting situations PC11. collaborate with colleagues performing the pre-required and post-required duty of processing unit tenter
Creative freedom	PC12. develop new ideas for work procedures PC13. improve upon the existing techniques to increase process efficiency
Knowledge and Understanding (K)	
A. Organizational Context	You need to know and understand: KA1. standard operating procedure (SOP) and regulations in a textile mill KA2. procedure followed to get the final output in the textile mill KA3. safe working practices to be adopted in textile mill KA4. how to report to the supervisor or higher authority about any grievances faced
B. Technical Knowledge	KB1. the importance of the previous and next step of the process KB2. process flow in a textile mill and the concerned workers KB3. material flow in a textile mill and the required person KB4. functions of different parts of the machine KB5. tools and equipments used KB6. guidelines for operating the machine KB7. safety procedures to be followed in the machine
Skills (S)	
A. Core Skills/	Writing Skills
	You need to know and understand how to:

TSC/ N9002

Working in a team

Generic Skills	SA1. write clear and short sentences SA2. write daily work report SA3. write grievance complaint application
	Reading Skills You need to know and understand how to: SA4. comprehend written instructions SA5. read any application sent by other colleagues
	Oral Communication (Listening and Speaking skills) You need to know and understand how to: SA6. communicate with supervisor appropriately SA7. talk to co-workers to convey information effectively
	B. Professional Skills
Problem Solving You need to know and understand how to: SB1. identify the real reason of problem faced SB2. be able to find the most effective solution to the problems faced	Attention to Detail You need to know and understand how to: SB3. apply good attention to detail SB4. ensure every kind of communication is error free
You need to know and understand how to: SC1. communicate effectively SC2. apply leadership skills wherever required SC3. take initiative at the right place SC4. understand the requirement to be creative	

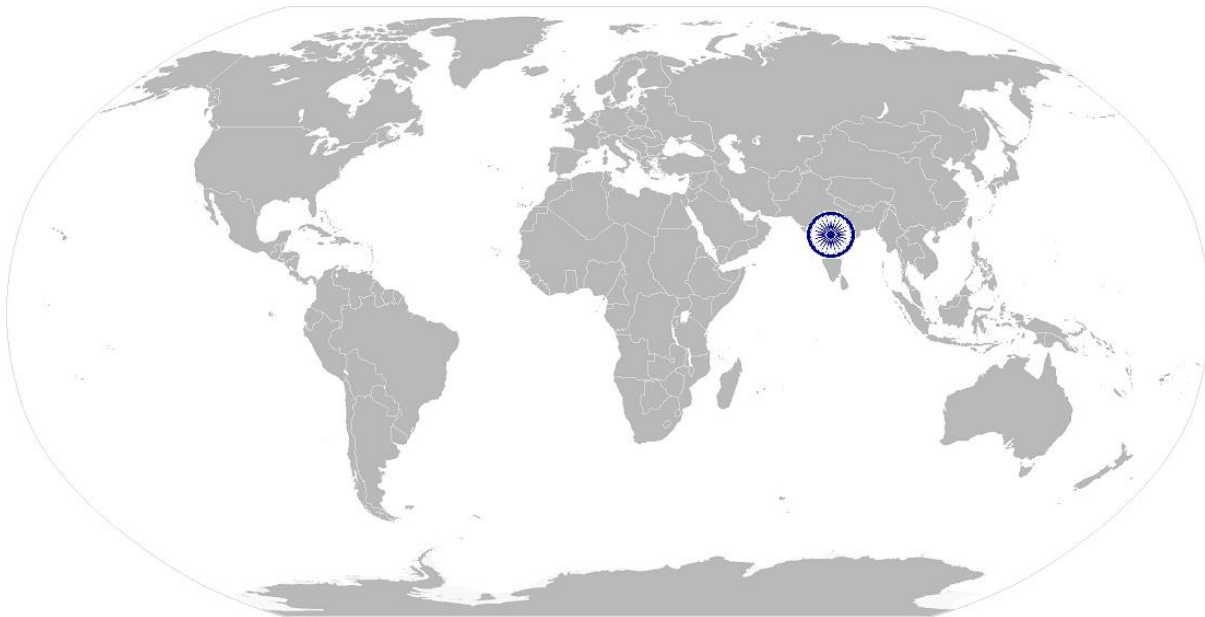


TSC/ N9002

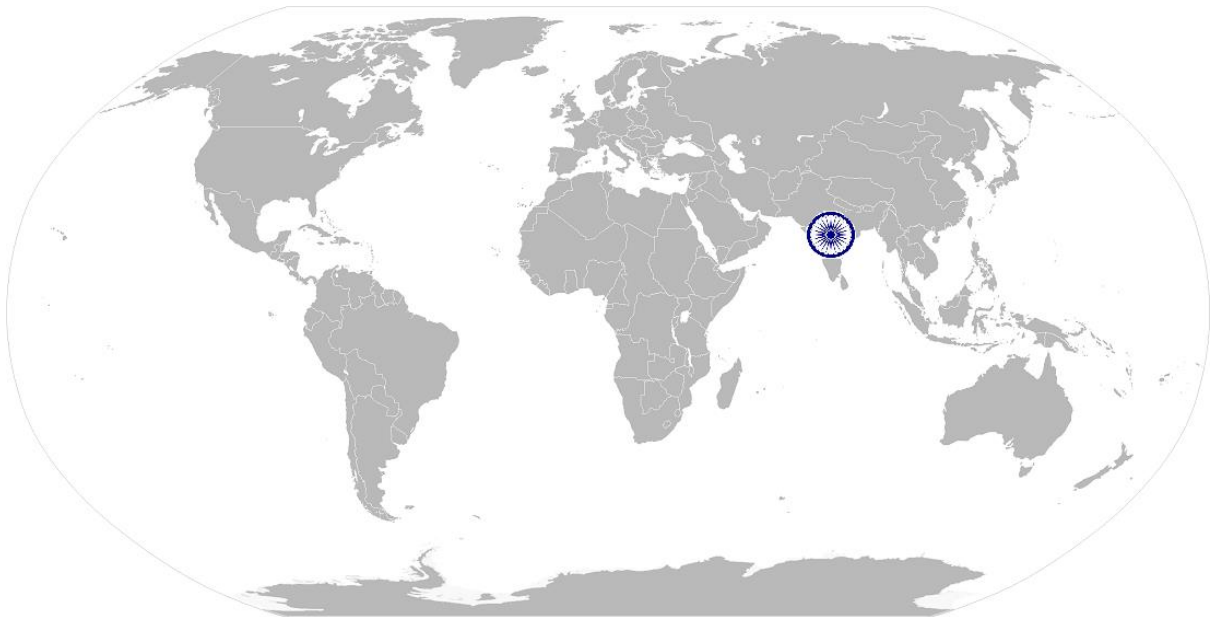
Working in a team

NOS Version Control

NOS Code	TSC/ N9002		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Finishing	Next review date	01/03/16



National Occupational Standard



Overview

This unit is about maintaining health, safety, and security standards at workplace.

TSC/ N9003

Maintain health, safety and security at work place

Unit Code	TSC/ N9003
Unit Title (Task)	Maintain health, safety and security at work place
Description	This unit provides performance criteria, knowledge & understanding and skills & abilities required to comply with health, safety and security requirements at the workplace and covers procedure to prevent, control and minimize risk to self and others.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> ▪ comply with health, safety and security requirements at work ▪ recognizing the hazards ▪ planning the safety techniques ▪ implementing the programs
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Comply with health, Safety and security requirements at work	<p>To be competent, operator must be able to:</p> <p>PC1. comply with health and safety related instructions applicable to the workplace</p> <p>PC2. use and maintain personal protective equipment such as “ ear plug” “ nose mask “ “ head cap” etc., as per protocol</p> <p>PC3. carry out own activities in line with approved guidelines and procedures</p> <p>PC4. maintain a healthy lifestyle and guard against dependency on intoxicants</p> <p>PC5. follow environment management system related procedures</p> <p>PC6. identify and correct (if possible) malfunctions in machinery and equipment</p> <p>PC7. report any service malfunctions that cannot be rectified</p> <p>PC8. store materials and equipment in line with organisational requirements</p> <p>PC9. safely handle and remove waste</p> <p>PC10. minimize health and safety risks to self and others due to own actions</p> <p>PC11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks</p> <p>PC12. monitor the workplace and work processes for potential risks and threat</p> <p>PC13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned</p> <p>PC14. report hazards and potential risks/ threats to supervisors or other authorized personnel</p> <p>PC15. participate in mock drills/ evacuation procedures organized at the workplace</p> <p>PC16. undertake first aid, fire-fighting and emergency response training, if asked to do so</p> <p>PC17. take action based on instructions in the event of fire, emergencies or accidents</p> <p>PC18. follow organisation procedures for shutdown and evacuation when required</p>
Recognizing the hazards	<p>To be competent, you must be able to:</p> <p>PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry</p> <p>PC20. recognise other possible security issues existing in the workplace</p>
Planning the safety	PC21. recognise different measures to curb the hazards

TSC/ N9003

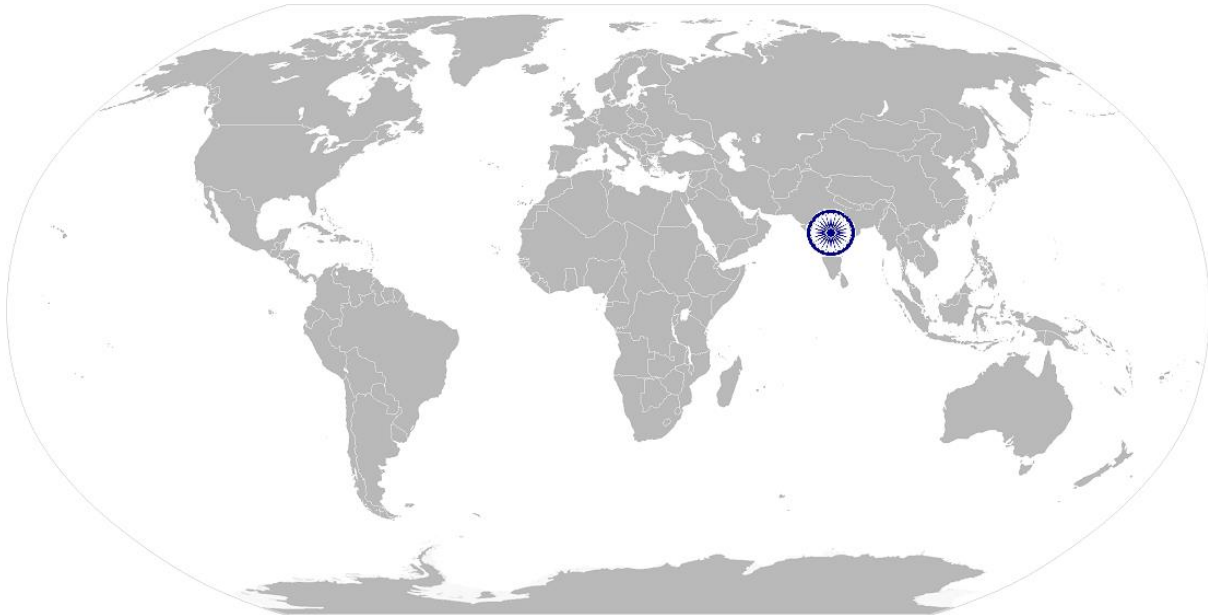
Maintain health, safety and security at work place

techniques	
Implementing the programs	PC22. communicate the safety plan to everyone PC23. attach disciplinary rules with the implementation
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. standard operating procedure (SOP) and regulations in a textile mill KA2. safe working practices to be adopted in textile mill KA3. quality systems and other processes practiced in the textile mill KA4. health and safety related practices applicable at the workplace KA5. potential hazards, risks and threats based on nature of operations KA6. organizational procedures for safe handling of equipment and machine operations KA7. potential risks due to own actions and methods to minimize these KA8. environmental management system related procedures at the workplace KA9. layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points KA10. potential accidents and emergencies and response to these scenarios KA11. reporting protocol and documentation required KA12. details of personnel trained in first aid, fire-fighting and emergency response KA13. actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire
B. Technical Knowledge	You need to know and understand: KB1. occupational health and safety risks and methods KB2. personal protective equipment and method of use KB3. identification, handling and storage of hazardous substances KB4. proper disposal system for waste and by-products KB5. signage related to health and safety and their meaning KB6. importance of sound health, hygiene and good habits KB7. ill-effects of alcohol, tobacco and drugs
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	You need to know and understand how to: SA8. write clear and short sentences
	Reading Skills
	SA2. read and understand the company instructions SA3. read and understand the local language SA4. read and understand the safety guidelines
	Oral Communication (Listening and Speaking skills)
SA5. listen to others attentively SA6. respond to emergencies, accidents or fire at the workplace SA7. evacuate the premises and help others in need while doing so SA8. the value of physical fitness, personal hygiene and good habits SA9. talk with others politely	
B. Professional Skills	Decision Making
	You need to know and understand :

TSC/ N9003

Maintain health, safety and security at work place

	SB1. identify correct safety measure for particular hazard SB2. make required safety plans as and when required SB3. raise alarm in case of emergency
	Analytical Thinking
	SB4. know the use of correct safety measure whenever required
	Attention to Detail
	SB5. be attentive to details SB6. be careful to avoid occurrence of hazards
C. Technical Skills	You need to know and understand : SC1. maintain neatness at work SC2. procedure for reporting unwanted behavior

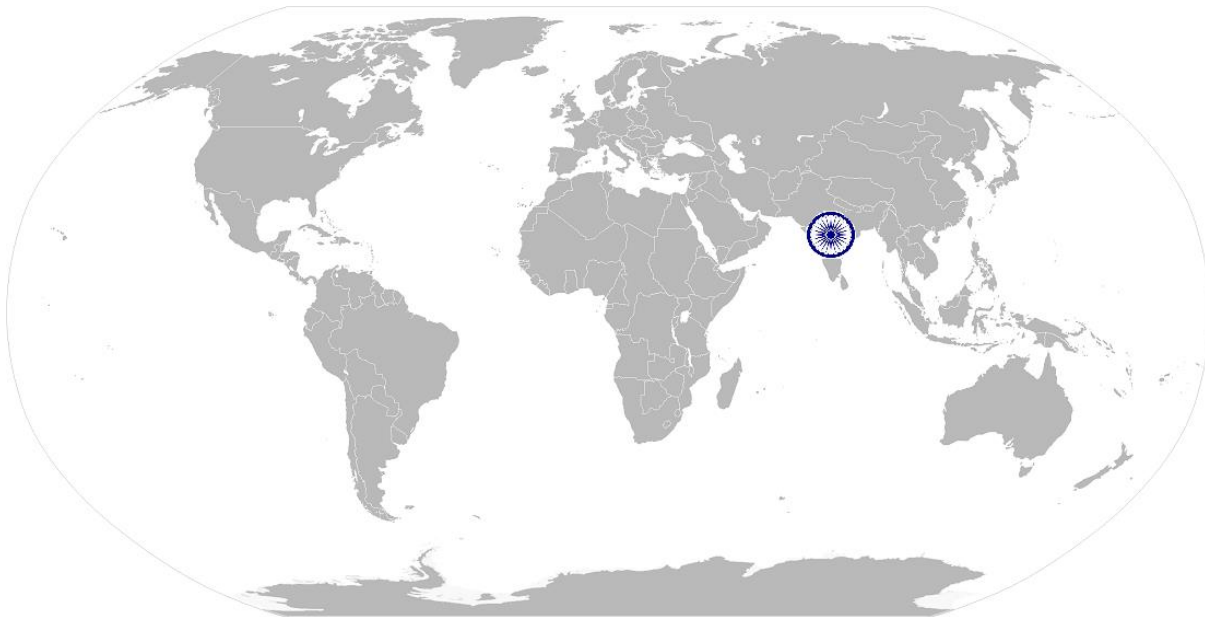


TSC/ N9003

Maintain health, safety and security at work place

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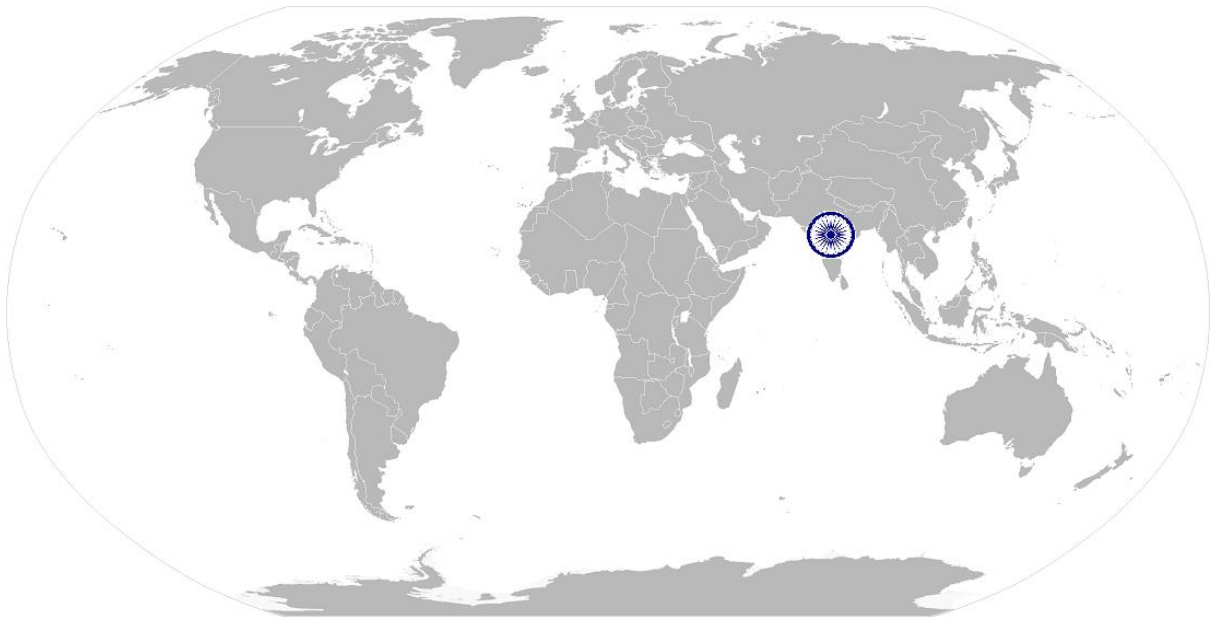
NOS Code	TSC/ N9003		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Finishing	Next review date	01/03/16



TSC/N9004

Comply with industry and organizational requirements

National Occupational Standard



Overview

This unit is about knowing, understanding, and complying with the requirements of the organization and the textile industry

TSC/N9004

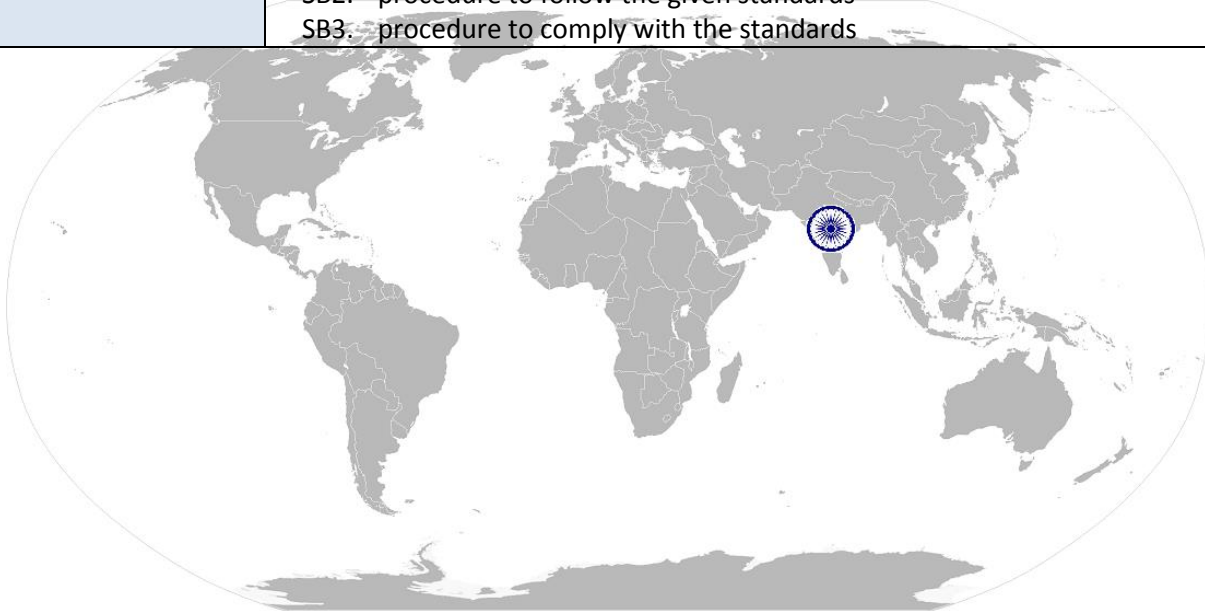
Comply with industry and organizational requirements

National Occupational Standard	Unit Code	TSC/ N9004
	Unit Title (Task)	Comply with industry and organizational requirements
	Description	This unit is about knowing, understanding, and complying with the requirements of the organization and the textile industry
	Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> ▪ self development ▪ team work ▪ organizational standards ▪ industry standards
	Performance Criteria (PC) w.r.t. the Scope	
	Elements	PerformanceCriteria
	Self- development	To be competent, you must be able to: PC1. perform own duties effectively PC2. take responsibility for own actions PC3. be accountable towards the job role and assigned duties PC4. take initiative and innovate the existing methods PC5. focus on self-learning and improvement
	Team work	PC6. co-ordinate with all the team members and colleagues PC7. communicate politely PC8. avoid conflicts and miscommunication
	Organisational standards	PC9. know the organisational standards PC10. implement them in your performance PC11. motivate others to follow them
	Industry standards	PC12. know the industry standards PC13. align them with organisation standards
Knowledge and Understanding (K)		
A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. standard operating procedure (SOP) and regulations in a textile mill KA2. reporting to the supervisor or higher authority KA3. knowledge of organisational standards KA4. knowledge of industry standards	
B. Technical Knowledge	You need to know and understand: KB1. process and material flow in a processing unit KB2. importance of complying with the standards KB3. guidelines for cleaning the various part of machine	
Skills (S)		
A. Core Skills/ Generic Skills	Writing Skills	
	You need to know and understand how to: SA1. write reports SA9. write clear and short sentences	

TSC/N9004

Comply with industry and organizational requirements

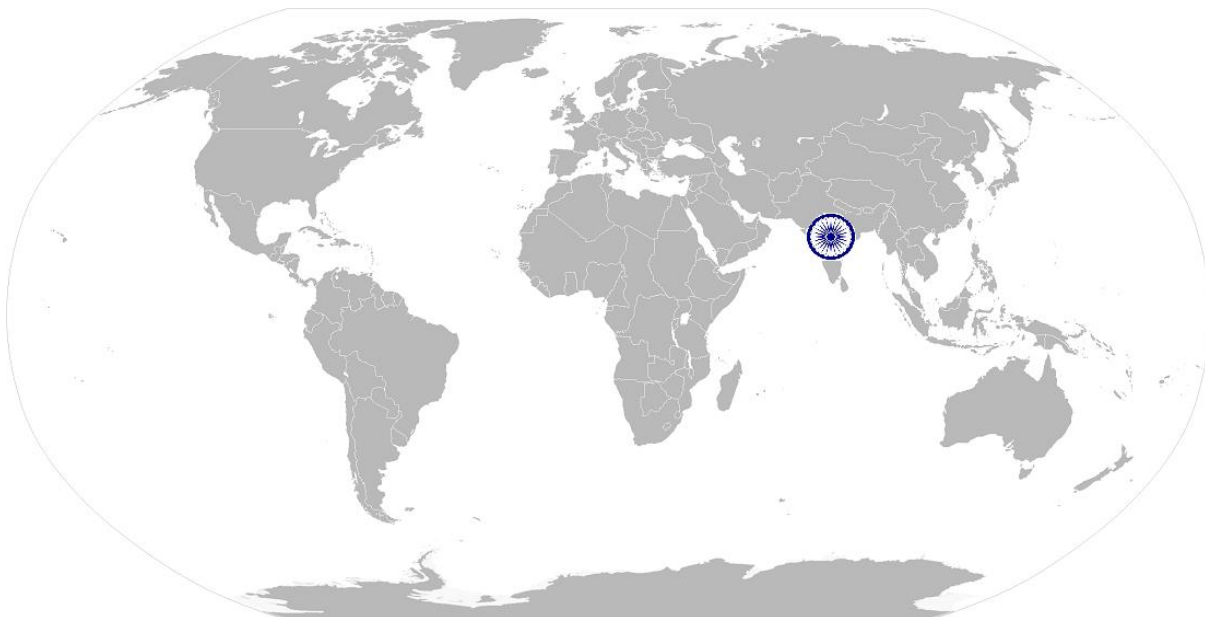
	Reading Skills
	You need to know and understand how to: SA2. read the local language SA3. read one more language than the local language SA4. read and comprehend the standards and rules
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to: SA5. talk effectively with others SA6. put forward your point SA7. listen to others
B. Technical Skills	You need to know and understand : SB1. procedure of preparing the industry standards SB2. procedure to follow the given standards SB3. procedure to comply with the standards



TSC/N9004 Comply with industry and organizational requirements

NOS Version Control

NOS Code	TSC/N 9004		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Finishing	Next review date	01/03/16



Assessment criteria

Job Role: Stenter Machine Operator						
Qualification Pack: Stenter Machine Operator						
Sector Skill Council: Textile Sector Skill Council						
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 & skill practical for each PC.						
2. The assessment for the theory part will be based on knowledge bank of question created by the SSC.						
3. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre (as per assessment criteria below).						
4. To pass the qualification pack, every trainee should score a minimum of 80%.						
National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
1. TSC/N 5401 Taking charge of shift and handing over shift to operator	PC1. come at least 10 - 15 minutes earlier to the work place	42	2	0	2	0
	PC2. bring the necessary operational tools to the department		1	0	1	0
	PC3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality or production or spare or safety or any other specific instruction etc.		3	0	2	1
	PC4. understand the fabric being processed & process running on the machine		3	1	1	1
	PC5. ensure the technical details are mentioned on the job card display on the machine		3	1	1	1
	PC6. check for the availability of the spare trolley for unloading the fabric		1	0	1	0
	PC7. check the next batch to be processed is ready near the machine		1	0	1	0
	PC8. ensure the required dyes & chemicals are already weighed & prepared		1	0	1	0
	PC9. check the cleanliness of the machines & other work areas		2	0	2	0

PC10. question the previous shift operator for any deviation in the above and bring the same to the knowledge of his/ her shift superior as well that of the previous shift as well.	2	0	2	0
PC11. hand over the shift to the incoming operator in a proper manner	1	0	1	0
PC12. ensure in providing the details regarding fabric quality & the process running on the machine	3	2	0	1
PC13. provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine.	2	0	2	0
PC14. ensure the empty trolley is near the machine for unloading the fabric	1	0	1	0
PC15. ensure the next lot to be processed, which is already stitched & arranged properly is ready near the machine	2	0	2	0
PC16. ensure the required dyes & chemicals for the next lot or next process are weighed & prepared	2	0	2	0
PC17. get clearance from the incoming counterpart before leaving the work spot	2	0	2	0
PC18. report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift	2	0	2	0
PC19. ensure the shift has to be properly handed over to the incoming shift operator	2	0	2	0
PC20. report to his/ her shift superior about the quality / production / safety issues/ any other issue faced in his/ her shift and leave the department only after getting concurrence for the same from his/ her superiors	3	0	2	1
PC21. collect the wastes from waste collection bags, weigh them and transport to storage area	1	0	1	0
PC22. ensure the machine and its work place is clean	2	0	2	0
	42	4	33	5
Total	Weightag	10%	79%	12%

		e %				
2. TSC/N 5402 Operating the Stenter Machine	PC1. ensure that the machine is clean	37	2	0	2	0
	PC2. feed the fabric from the batch or trolley in the center of the machine		2	0	2	0
	PC3. ensure fabric is crease-less and evenly fed into the machine		2	0	2	0
	PC4. know the operations of the machine		2	0	2	0
	PC5. read & understand the process being followed to do the task		3	1	1	1
	PC6. set the width maximum and minimum once a day keep even tension on fabric throughout the process		2	0	1	1
	PC7. keep even tension on fabric throughout the process		2	0	2	0
	PC8. keep optimum pressure of the squeezer rolls to get specified results		2	0	1	1
	PC9. set the required temp & fan speeds in all chambers		3	1	1	1
	PC10. feed the fabric to the stenter chain		1	0	1	0
	PC11. adjust the overfeed device as per the requirement of the fabric		2	0	1	1
	PC12. start the machine & take out the fabric at the delivery end		1	0	1	0
	PC13. check various control parameters such as temp, width, mangle pressure & machine speed at regular interval ,hardness of the padder		3	0	2	1
	PC14. make sure the machine is kept clean at all times ,before loading, while running & after unloading the fabric		2	0	2	0
	PC15. follow the preventive maintenance schedule & ensure the machine is running smoothly		2	0	2	0
	PC16. check that all controls are functioning properly		2	0	2	0
	PC17. ensure the right quality of water , steam & air is available for proper functioning of machine		2	0	2	0
	PC18. cool down the machine after completion of job		2	0	2	0
	37	2	29	6		

	Total	Weightage %		5%	78%	16%
3. TSC/N 5403 Recording the Finishing Chemicals	PC1. dissolve the pre weighed or dispensed chemicals in the drum	10	2	0	2	0
	PC2. stir & mix the chemicals properly to make a homogenous liquid		2	1	1	0
	PC3. adjust the ph, temp & concentration of the mixture as specified in the finishing recipe		3	1	1	1
	PC4. feed the chemicals either manually or via pump to the mangle trough		1	0	1	0
	PC5. adjust the mangle pressure to get the required pick up		2	0	2	0
			10	2	7	1
	Total	Weightage %		20%	70%	10%
4. TSC/ N9001 Maintain work area, tools and machines	PC1. handle materials, machinery, equipment and tools with care and use them in the correct way	29	3	1	2	0
	PC2. use correct lifting and handling procedures		1	0	1	0
	PC3. use materials to minimize waste		2	1	1	0
	PC4. maintain a clean and hazard free working area		3	1	1	1
	PC5. maintain tools and equipment		3	1	2	0
	PC6. carry out running maintenance within agreed schedules		2	1	1	0
	PC7. carry out maintenance and/or cleaning within one's responsibility		1	0	1	0
	PC8. report unsafe equipment and other dangerous occurrences		1	1	0	0
	PC9. ensure that the correct machine guards are in place		2	1	1	0
	PC10. work in a comfortable position with the correct posture		3	1	2	0
	PC11. use cleaning equipment and methods appropriate for the work to be carried out		2	1	1	0
	PC12. dispose of waste safely in the designated location		2	0	2	0
	PC13. store cleaning equipment safely after use		2	0	2	0
	PC14. carry out cleaning according to		2	1	1	0

	schedules and limits of responsibility					
			29	10	18	1
	Total	Weightage %		34%	62%	3%
5.TSC/ N9002 Working in a team	PC1. be accountable to the own role in whole process	26	2	1	1	0
	PC2. perform all roles with full responsibility		3	1	2	0
	PC3. be effective and efficient at workplace		4	1	2	1
	PC4. properly communicate about company policies		2	1	0	1
	PC5. report all problems faced during the process		1	1	0	0
	PC6. talk politely with other team members and colleagues		2	1	1	0
	PC7. submit daily report of own performance		1	0	1	0
	PC8. adjust in different work situations		2	0	2	0
	PC9. give due importance to others' point of view		2	1	0	1
	PC10. avoid conflicting situations		3	1	1	1
	PC11. develop new ideas for work procedures		2	1	1	0
	PC12. improve upon the existing techniques to increase process efficiency		2	1	1	0
			26	10	12	4
	Total	Weightage %		38%	46%	15%
6. TSC/ N9003 Maintain health, safety and security at workplace	PC1. comply with health and safety related instructions applicable to the workplace	71	5	1	3	1
	PC2. use and maintain personal protective equipment such as "ear plug", " nose mask ", " head cap" etc., as per protocol		5	1	3	1
	PC3. carry out own activities in line with approved guidelines and procedures		3	1	2	0
	PC4. maintain a healthy lifestyle and guard against dependency on intoxicants		2	1	0	1
	PC5. follow environment management		3	1	2	0

	system related procedures				
	PC6. identify and correct (if possible) malfunctions in machinery and equipment	3	1	1	1
	PC7. report any service malfunctions that cannot be rectified	2	1	0	1
	PC8. store materials and equipment in line with organisational requirements	2	0	1	1
	PC9. safely handle and remove waste	2	0	2	0
	PC10. minimize health and safety risks to self and others due to own actions	3	1	1	1
	PC11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks	3	1	1	1
	PC12. monitor the workplace and work processes for potential risks and threat	2	0	2	0
	PC13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned	3	2	0	1
	PC14. report hazards and potential risks/ threats to supervisors or other authorized personnel	3	2	0	1
	PC15. participate in mock drills/ evacuation procedures organized at the workplace	3	1	2	0
	PC16. undertake first aid, fire-fighting and emergency response training, if asked to do so	5	2	2	1
	PC17. take action based on instructions in the event of fire, emergencies or accidents	4	1	2	1
	PC18. follow organisation procedures for shutdown and evacuation when required	2	0	2	0
	PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry	5	1	3	1
	PC20. recognise other possible security issues existing in the workplace	3	1	1	1
	PC21. attach disciplinary rules with the implementation	3	1	2	0
	PC22. communicate the safety plan to everyone	3	2	0	1
	PC23. attach disciplinary rules with the implementation	2	1	1	0

			71	23	33	15
	Total	Weighttag e %		32%	46%	21%
7. TSC/ N9004 Comply with industry and organisation al requirements	PC1. perform own duties effectively	39	4	1	2	1
	PC2. take responsibility for own actions		4	1	2	1
	PC3. be accountable towards the job role and assigned duties		3	1	1	1
	PC4. take initiative and innovate the existing methods		4	1	2	1
	PC5. focus on self-learning and improvement		3	1	1	1
	PC6. co-ordinate with all the team members and colleagues		3	1	2	0
	PC7. communicate politely		3	1	2	0
	PC8. avoid conflicts and miscommunication		3	1	2	0
	PC9. know the organisational standards		2	1	1	0
	PC10. implement them in your performance		3	1	2	0
	PC11. motivate others to follow them		3	1	2	0
	PC12. know the industry standards		2	1	0	1
	PC13. align them with organisation standards		2	0	2	0
			39	12	21	6
	Total		Weighttag e %		31%	54%
Total		254	63	153	38	
Grand Total		254				