

Qualification Pack



Continuous Bleaching Range Operator

QP Code: TSC/Q5102

Version: 1.0

NSQF Level: 4

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TSC/Q5102: Continuous Bleaching Range Operator

Brief Job Description

A Continuous Range (CBR) Operator is responsible to do the specified job of Scouring, Bleaching & Drying of grey fabric with proper control of parameters to get the desired effect. . He should be able to operate the machine, carry out routine cleaning & preventive maintenance activities to produce defect free fabric. 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 Continuous Bleaching Range machine.

Personal Attributes

A Continuous Bleaching Range Operator should have good eyesight, motor skills and vision. He/she should also have good interpersonal skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TSC/N5104: Taking charge of shift and handing over shift to Continuous Bleaching Range Operator](#)
2. [TSC/N5105: Operating the Continuous Bleaching Range Machine](#)
3. [TSC/N5106: Checking the quality of Bleached Fabric](#)
4. [TSC/N9001: Maintain work area, tools and machines](#)
5. [TSC/N9002: Working in a team](#)
6. [TSC/N9003: Maintain health, safety and security at workplace](#)
7. [TSC/N9004: Comply with industry and organizational requirement](#)

Qualification Pack (QP) Parameters

Sector	Textile
Sub-Sector	Processing
Occupation	Processing Preparatory
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8154.99

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Minimum Educational Qualification & Experience	10th Class (Preferably) with 1-2 Years of experience Preferably
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	3 to 6 months of training in textile processing department (Suggested but not mandatory)
Minimum Job Entry Age	18 Years
Last Reviewed On	21/01/2015
Next Review Date	31/03/2021
Deactivation Date	31/03/2021
NSQC Approval Date	05/08/2015
Version	1.0

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TSC/N5104: Taking charge of shift and handing over shift to Continuous Bleaching Range Operator

Description

This unit is about taking charge of shift from previous shift Continuous bleaching range operator and relieving the responsibilities to the next shift Continuous bleaching range operator

Scope

This unit/task covers the following:

- taking charge of shift from Continuous bleaching range operator
- handing over the shift to Continuous bleaching range operator

Elements and Performance Criteria

Taking charge of shift from Continuous bleaching range operator

To be competent, the user/individual on the job must be able to:

1. come at least 10 - 15 minutes earlier to the work spot
2. bring the necessary operational tools to the department
3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc.
4. understand the fabric being processed & process running on the machine
5. ensure the technical details are mentioned on the job card display on the machine
6. check for the availability of the spare trolley for unloading the fabric
7. check the next batch to be processed is ready near the machine
8. ensure the required chemicals are already weighed & prepared
9. check the cleanliness of the machines & other work areas
10. check whether any spare/raw material/ tool / yarn / any other materials are thrown under the machines or in the other work areas
11. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well that of the previous shift
12. ensure the wastes collection boxes are empty while taking charge of shift
13. take over the shift from the outgoing Continuous bleaching range operator in a proper manner

Handing over shift to Continuous bleaching range operator

To be competent, the user/individual on the job must be able to:

14. ensure in providing the details regarding fabric quality & the process running on the machine
15. to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine
16. ensure the empty trolley is near the machine for unloading the fabric
17. ensure the next lot to be processed is ready near the machine already stitched & arranged properly

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18. ensure the required chemicals for the next lot or next process are weighed & prepared
19. get clearance from the incoming counterpart before leaving the work spot
20. 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
21. ensure, the shift has to be properly handed over to the incoming shift operator
22. report to his/ her shift superior about the quality / production / safety 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
23. collect the wastes from waste collection bags, weigh them and transport to storage area
24. ensure the work spot is clean

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a processing unit
- KU2.** safe working practices to be adopted in processing unit
- KU3.** quality systems and other processes practiced in the processing unit
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different products in the processing unit
- KU6.** understanding the importance of quality & productivity
- KU7.** understanding various defects in the fabric due to yarn, weaving or processing
- KU8.** reasons for various defects in the fabric due to processing & their remedy
- KU9.** process flow in a processing unit
- KU10.** material flow in a processing unit
- KU11.** importance of colour coding followed for different products
- KU12.** guidelines for operating the continuous bleaching range
- KU13.** the functions of different signal lamps
- KU14.** guidelines for taking charge of shift from previous shift Continuous bleaching range operator
- KU15.** guidelines for handing over the shift to the next shift Continuous bleaching range operator
- KU16.** importance of material handling and types of material handling equipments used equipments
- KU17.** functions and methodology for operating different material handling tools
- KU18.** knowledge of waste collection system & equipments used
- KU19.** importance of cleanliness at workplace
- KU20.** safety procedures to be followed in a continuous bleaching range

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences

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- GS2.** comprehend written instructions
- GS3.** communicate with supervisor appropriately
- GS4.** talk to others to convey information effectively
- GS5.** apply problem-solving approaches in different situations
- GS6.** refer anomalies to the supervisor
- GS7.** seek clarification on problems from others
- GS8.** apply good attention to detail
- GS9.** check your work is complete and free from errors
- GS10.** Standard operating procedures for operating the machine
- GS11.** Procedures for operating various valves & traps
- GS12.** Procedures for operating different material handling tools and equipment
- GS13.** Procedures to check the quality of processed fabric
- GS14.** Maintain cleanliness at work place
- GS15.** Procedure for segregating the different types of wastes
- GS16.** Procedure for storing reusable wastes and weighing them

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from Continuous bleaching range operator</i>	2	29	-	4
1. come at least 10 - 15 minutes earlier to the work spot	-	3	-	1
2. bring the necessary operational tools to the department	1	2	-	1
3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc.	-	3	-	1
4. understand the fabric being processed & process running on the machine	-	2	-	-
5. ensure the technical details are mentioned on the job card display on the machine	-	2	-	-
6. check for the availability of the spare trolley for unloading the fabric	-	2	-	-
7. check the next batch to be processed is ready near the machine	-	2	-	-
8. ensure the required chemicals are already weighed & prepared	-	2	-	-
9. check the cleanliness of the machines & other work areas	-	2	-	-
10. check whether any spare/raw material/ tool / yarn / any other materials are thrown under the machines or in the other work areas	-	2	-	-
11. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well that of the previous shift	-	2	-	-
12. ensure the wastes collection boxes are empty while taking charge of shift	-	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
13. take over the shift from the outgoing Continuous bleaching range operator in a proper manner	1	2	-	1
<i>Handing over shift to Continuous bleaching range operator</i>	-	20	-	1
14. ensure in providing the details regarding fabric quality & the process running on the machine	-	3	-	-
15. to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine	-	3	-	-
16. ensure the empty trolley is near the machine for unloading the fabric	-	3	-	-
17. ensure the next lot to be processed is ready near the machine already stitched & arranged properly	-	1	-	-
18. ensure the required chemicals for the next lot or next process are weighed & prepared	-	1	-	-
19. get clearance from the incoming counterpart before leaving the work spot	-	2	-	-
20. 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	-	-
21. ensure, the shift has to be properly handed over to the incoming shift operator	-	2	-	-
22. report to his/ her shift superior about the quality / production / safety 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	-	1	-	1
23. collect the wastes from waste collection bags, weigh them and transport to storage area	-	1	-	-
24. ensure the work spot is clean	-	1	-	-
NOS Total	2	49	-	5

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N5104
NOS Name	Taking charge of shift and handing over shift to Continuous Bleaching Range Operator
Sector	Textile
Sub-Sector	Processing
Occupation	Processing Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

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TSC/N5105: Operating the Continuous Bleaching Range Machine

Description

This unit is about operating the Continuous Bleaching Range Machine

Scope

Carry out preparatory activities for operations of the machine
Operating the machine for specified task as per work order
Clean the machine on a regular basis & carry out preventive maintenance

Elements and Performance Criteria

Carry out preparatory activities for operations of the machine

To be competent, the user/individual on the job must be able to:

1. understand the task mentioned in the work order
2. ensure that the machine and its working area is clean
3. clean the impregnator rolls & trough properly
4. Ensure the suction slit is properly cleaned & free of any lint or loose threads
5. clean all guide rolls in the reaction chambers & washing units
6. ensure all guide rolls are free moving
7. feed the fabric from the batch in the center of the machine
8. ensure that all controls are working properly
9. ensure fabric is crease-less and evenly fed onto the machine
10. open steam valve & drain any condensate from the line
11. Ensure good quality of steam & air pressure is available
12. Ensure the safety devices are functioning properly
13. Ensure to use personal protective equipments such as mask, gloves, ear plugs & gum boots

Operating the machine for specified tasks as per Work Order

To be competent, the user/individual on the job must be able to:

14. know the operations of the machine
15. read & understand the process being followed to do the task
16. keep even tension on fabric throughout the process
17. keep optimum pressure of the squeezer rolls to get good results
18. set the required temp in all chambers
19. open the steam valves & drain the condensate in all compartments
20. dispense the chemicals in the mixing tank
21. mix the chemicals properly & feed into the impregnator
22. start the machine & take out fabric either on batch
23. set the impregnator roller pressure to the optimum
24. ensure the wiper roller are functioning properly
25. ensure proper functioning of dosing pump & spraying of chemicals

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26. check that all control functions are working properly
27. check pH & temp & other parameters in all compartments
28. remove the air from the steamer
29. set the machine speed & dwell time according to the fabric quality
30. set the temp in all washing chambers
31. ensuring proper functioning of flow meter & level controller
32. set the drying temp of all drying cylinders
33. ensure proper fabric batching tension for even & creaseless fabric winding
34. Ensure that all safety controls are functioning properly

Clean the machine on a regular basis and carryout preventive maintenance activities

To be competent, the user/individual on the job must be able to:

35. keep the machine clean at all times
36. follow the preventive maintenance schedule & ensure the machine is running smoothly
37. check that all controls are functioning properly
38. ensure enough supply of utilities such as water, air & steam for proper functioning of machine
39. stop the machine in case of any abnormal sound & report the matter to supervisor or concerned person
40. check for any leakages of water, steam or air
41. Check steam, water and air pressure

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** personal hygiene and duty of care
- KU2.** safe working practices and organisational procedures
- KU3.** limits of your own responsibility
- KU4.** ways of resolving problems within the work area
- KU5.** the production process and the specific work activities that relate to the whole process
- KU6.** the importance of effective communication with supervisors
- KU7.** the lines of communication, authority and reporting procedures
- KU8.** the organisations rules, codes and guidelines (including timekeeping)
- KU9.** the companys quality standards
- KU10.** the importance of complying with written instructions
- KU11.** equipment operating procedures / supervisors instructions
- KU12.** importance of discipline & punctuality
- KU13.** importance of take over & handover in achieving quality & productivity
- KU14.** any abnormal sound/ noise should be reported to the concerned/ supervisor
- KU15.** report to the supervisor if there is any major defect in fabric
- KU16.** type of fiber, yarn and fabric- piece dyed or for printing
- KU17.** avoid any unnecessary tension on fabric

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- KU18.** ensure continuous feeding of fabric using scray/ j- box
- KU19.** knowledge about various controls of machine
- KU20.** avoiding unnecessary tension on the fabric
- KU21.** knowledge of operation of various valves & traps
- KU22.** knowledge of various chemicals for scouring & bleaching
- KU23.** use of batching devices for fabric roll up
- KU24.** checking of spraying of chemicals
- KU25.** knowledge of process parameters for bleaching
- KU26.** setting of various controller in machine
- KU27.** use of batching devices & other material handling equipments
- KU28.** spare the machine when its due for maintenance to avoid breakdown of machine while working
- KU29.** controls functions of the machine
- KU30.** continuous supply of good quality air, steam & water for maximum output
- KU31.** report the problem in the machine immediately to the concerned person
- KU32.** arrest the leakages water, steam or air in the line

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** comprehend written instructions
- GS2.** read any application sent by other colleagues
- GS3.** communicate in local language orally
- GS4.** communicate with supervisor appropriately
- GS5.** talk to others to convey information effectively
- GS6.** identify the real reason of problem faced
- GS7.** apply problem-solving approaches in different situations
- GS8.** refer anomalies to the supervisor
- GS9.** seek clarification on problems from others
- GS10.** apply good attention to detail
- GS11.** check your work is complete and free from errors
- GS12.** make sure every kind of communication is error free
- GS13.** knowledge about various functions of CBR machine
- GS14.** know the various faults due to yarn or weaving in the fabric
- GS15.** various fabric qualities / sort no. being processed
- GS16.** width of fabric being processed
- GS17.** length & weight of the batch under process
- GS18.** use the correct tools for cleaning the machine
- GS19.** use of edge guide sensors or centering device for even & straight feeding of fabric to the machine

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- GS20.** operation of various machine controls
- GS21.** proper use of guide rolls & control sensors
- GS22.** operation of various valves & traps
- GS23.** basic operation of CBR machine
- GS24.** knowledge of PLC control of machine
- GS25.** various operations carried out on CBR machine
- GS26.** proper use of tensioning devices to get even width of the fabric
- GS27.** knowledge about required optimum mangle pressure for efficient bleaching results
- GS28.** basic knowledge about washing temp of various products
- GS29.** drain the condensate first from steam line before opening the steam valve
- GS30.** automatic or manual dosing of various chemicals
- GS31.** basic knowledge of bleaching recipe for various products
- GS32.** operations of various machine controls
- GS33.** functions of level sensor, tension controller
- GS34.** monitoring of various control parameters for efficient washing results
- GS35.** operation of air vent valves
- GS36.** knowledge about reaction time for various fabric qualities
- GS37.** knowledge of various controls such as speed & fabric tension, level & pressure controller in steamer, liquid/ water flow meter
- GS38.** knowledge of setting of drying temp
- GS39.** use of proper cleaning tools such as blowers or vacuum cleaners
- GS40.** drain out condensate or water from steam & air supply line before starting the machine

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory activities for operations of the machine</i>	5	32	-	8
1. understand the task mentioned in the work order	1	3	-	1
2. ensure that the machine and its working area is clean	1	2	-	1
3. clean the impregnator rolls & trough properly	1	3	-	1
4. Ensure the suction slit is properly cleaned & free of any lint or loose threads	1	3	-	1
5. clean all guide rolls in the reaction chambers & washing units	1	2	-	1
6. ensure all guide rolls are free moving	-	3	-	1
7. feed the fabric from the batch in the center of the machine	-	2	-	1
8. ensure that all controls are working properly	-	2	-	1
9. ensure fabric is crease-less and evenly fed onto the machine	-	3	-	-
10. open steam valve & drain any condensate from the line	-	2	-	-
11. Ensure good quality of steam & air pressure is available	-	2	-	-
12. Ensure the safety devices are functioning properly	-	3	-	-
13. Ensure to use personal protective equipments such as mask, gloves, ear plugs & gum boots	-	2	-	-
<i>Operating the machine for specified tasks as per Work Order</i>	3	33	-	6
14. know the operations of the machine	-	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
15. read & understand the process being followed to do the task	-	2	-	-
16. keep even tension on fabric throughout the process	1	2	-	1
17. keep optimum pressure of the squeezer rolls to get good results	-	3	-	-
18. set the required temp in all chambers	-	2	-	1
19. open the steam valves & drain the condensate in all compartments	-	2	-	1
20. dispense the chemicals in the mixing tank	-	2	-	-
21. mix the chemicals properly & feed into the impregnator	-	2	-	-
22. start the machine & take out fabric either on batch	1	1	-	1
23. set the impregnator roller pressure to the optimum	-	1	-	-
24. ensure the wiper roller are functioning properly	-	2	-	-
25. ensure proper functioning of dosing pump & spraying of chemicals	-	1	-	-
26. check that all control functions are working properly	-	1	-	-
27. check pH & temp & other parameters in all compartments	-	2	-	-
28. remove the air from the steamer	1	1	-	1
29. set the machine speed & dwell time according to the fabric quality	-	1	-	-
30. set the temp in all washing chambers	-	1	-	1
31. ensuring proper functioning of flow meter & level controller	-	1	-	-
32. set the drying temp of all drying cylinders	-	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
33. ensure proper fabric batching tension for even & creaseless fabric winding	-	1	-	-
34. Ensure that all safety controls are functioning properly	-	1	-	-
<i>Clean the machine on a regular basis and carryout preventive maintenance activities</i>	-	13	-	-
35. keep the machine clean at all times	-	2	-	-
36. follow the preventive maintenance schedule & ensure the machine is running smoothly	-	2	-	-
37. check that all controls are functioning properly	-	2	-	-
38. ensure enough supply of utilities such as water, air & steam for proper functioning of machine	-	2	-	-
39. stop the machine in case of any abnormal sound & report the matter to supervisor or concerned person	-	1	-	-
40. check for any leakages of water, steam or air	-	2	-	-
41. Check steam, water and air pressure	-	2	-	-
NOS Total	8	78	-	14

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N5105
NOS Name	Operating the Continuous Bleaching Range Machine
Sector	Textile
Sub-Sector	Processing
Occupation	Processing Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

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TSC/N5106: Checking the quality of Bleached Fabric

Description

This unit is about checking the quality of Bleached fabric & comparing it with the standard

Scope

This unit covers the following:

- Taking out the sample after Bleaching & comparing it with the standard sample

Elements and Performance Criteria

Taking out the sample after Bleaching & comparing it with the standard

To be competent, the user/individual on the job must be able to:

1. taking out the sample after bleaching near the first joint
2. compare the sample with the standard
3. check the sample for absorbency
4. check the sample for whiteness index
5. take the sample to your supervisor if the sample is not matching to the standard for decision

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** personal hygiene and duty of care
- KU2.** safe working practices and organisational procedures
- KU3.** limits of your own responsibility
- KU4.** ways of resolving problems within the work area
- KU5.** the production process and the specific work activities that relate to the whole process
- KU6.** the importance of effective communication with supervisors
- KU7.** the lines of communication, authority and reporting procedures
- KU8.** the organisations rules, codes and guidelines (including time keeping)
- KU9.** the companys quality standards
- KU10.** the importance of complying with written instructions
- KU11.** equipment operating procedures / supervisors instructions
- KU12.** cutting the required size of sample to avoid wastage
- KU13.** should have good eye sight & analytical skills
- KU14.** Procedure to check fabric absorbency
- KU15.** skill to compare fabric whiteness
- KU16.** take corrective action immediately to avoid waste of time & production loss
- KU17.** use of various quality checking tools

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KU18. Knowledge about various quality standards

KU19. Effect of various control parameters on bleaching quality of fabric

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. comprehend written instructions

GS2. read any application sent by other colleagues

GS3. Communicate in local language orally

GS4. Communicate with supervisor appropriately

GS5. Talk to others to convey information effectively

GS6. identify the real reason of problem faced

GS7. apply problem-solving approaches in different situations

GS8. refer anomalies to the supervisor

GS9. seek clarification on problems from others

GS10. good matching skills & knowledge about the fabric quality

GS11. knowledge of absorbency properties of various fabrics

GS12. knowledge of requirement of whiteness index for various fabric qualities

GS13. adjustment of speed, temp, dwell time, chemical concentration or roller pressure depending upon the required effect on the fabric quality

GS14. apply good attention to detail

GS15. check your work is complete and free from errors

GS16. make sure every kind of communication is error free

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking out the sample after Bleaching & comparing it with the standard</i>	3	8	-	3
1. taking out the sample after bleaching near the first joint	1	2	-	1
2. compare the sample with the standard	1	2	-	-
3. check the sample for absorbency	1	2	-	1
4. check the sample for whiteness index	-	1	-	1
5. take the sample to your supervisor if the sample is not matching to the standard for decision	-	1	-	-
NOS Total	3	8	-	3

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N5106
NOS Name	Checking the quality of Bleached Fabric
Sector	Textile
Sub-Sector	Processing
Occupation	Processing Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

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TSC/N9001: Maintain 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:

- Maintaining the work area, tools and machines

Elements and Performance Criteria

Maintaining the work area, tools and machines

To be competent, the user/individual on the job must be able to:

1. handle materials, machinery, equipment and tools with care and use them in the correct way
2. use correct lifting and handling procedures
3. use materials to minimize waste
4. maintain a clean and hazard free working area
5. maintain tools and equipment
6. carry out running maintenance within agreed schedules
7. carry out maintenance and/or cleaning within ones responsibility
8. report unsafe equipment and other dangerous occurrences
9. ensure that the correct machine guards are in place
10. work in a comfortable position with the correct posture
11. use cleaning equipment and methods appropriate for the work to be carried out
12. dispose of waste safely in the designated location
13. store cleaning equipment safely after use
14. carry out cleaning according to schedules and limits of responsibility

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** personal hygiene and duty of care
- KU2.** safe working practices and organisational standard operating procedures
- KU3.** limits of your own responsibility
- KU4.** ways of resolving problems within the work area
- KU5.** the production process and the specific work activities that relate to the whole process
- KU6.** the importance of effective communication with supervisors
- KU7.** the lines of communication, authority and reporting procedures

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- KU8.** the organisation's rules, codes and guidelines (including timekeeping)
- KU9.** the company's quality standards
- KU10.** the importance of complying with written instructions
- KU11.** equipment operating procedures / supervisor's instructions
- KU12.** work instructions and specifications and interpret them accurately
- KU13.** relation between work role and the overall manufacturing process
- KU14.** hazards likely to be encountered when conducting routine maintenance
- KU15.** the importance of taking action when problems are identified
- KU16.** different ways of minimising waste
- KU17.** the importance of running maintenance and regular cleaning
- KU18.** effects of contamination on products i.e. machine oil, dirt, foreign materials
- KU19.** common faults with equipment and the method to rectify
- KU20.** maintenance procedures
- KU21.** different types of cleaning equipment and substances and their use
- KU22.** safe working practices for cleaning and the method of carrying them out

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** comprehend written instructions
- GS2.** read any application sent by other colleagues
- GS3.** Communicate effectively in local language
- GS4.** communicate with supervisor appropriately
- GS5.** talk to others to convey information effectively
- GS6.** identify the real reason of problem faced
- GS7.** apply problem-solving approaches in different situations
- GS8.** refer anomalies to the supervisor
- GS9.** seek clarification on problems from others
- GS10.** apply good attention to detail
- GS11.** check your work is complete and free from errors
- GS12.** make sure every kind of communication is error free
- GS13.** communicate effectively
- GS14.** apply leadership skills wherever required
- GS15.** take initiative at the right place
- GS16.** understand the requirement to be creative

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintaining the work area, tools and machines</i>	17	20	-	13
1. handle materials, machinery, equipment and tools with care and use them in the correct way	2	2	-	1
2. use correct lifting and handling procedures	1	2	-	1
3. use materials to minimize waste	2	1	-	1
4. maintain a clean and hazard free working area	1	1	-	1
5. maintain tools and equipment	2	1	-	1
6. carry out running maintenance within agreed schedules	1	2	-	1
7. carry out maintenance and/or cleaning within ones responsibility	1	2	-	1
8. report unsafe equipment and other dangerous occurrences	1	2	-	-
9. ensure that the correct machine guards are in place	1	1	-	1
10. work in a comfortable position with the correct posture	1	1	-	1
11. use cleaning equipment and methods appropriate for the work to be carried out	1	1	-	1
12. dispose of waste safely in the designated location	1	2	-	1
13. store cleaning equipment safely after use	1	1	-	1
14. carry out cleaning according to schedules and limits of responsibility	1	1	-	1
NOS Total	17	20	-	13

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9001
NOS Name	Maintain work area, tools and machines
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQF Clearance Date	05/08/2015

Qualification Pack

TSC/N9002: Working in a team

Description

This unit is about working as a team member in the textile industry

Scope

This unit/task covers the following:

- commitment and trust
- communication
- adaptability
- creative freedom

Elements and Performance Criteria

Commitment and trust

To be competent, the user/individual on the job must be able to:

1. be accountable to the own role in whole process
2. perform all roles with full responsibility
3. be effective and efficient at workplace

Communication

To be competent, the user/individual on the job must be able to:

4. properly communicate about company policies
5. report all problems faced during the process
6. talk politely with other team members and colleagues
7. submit daily report of own performance

Adaptability

To be competent, the user/individual on the job must be able to:

8. adjust in different work situations
9. give due importance to other's point of view
10. avoid conflicting situations

Creative freedom

To be competent, the user/individual on the job must be able to:

11. develop new ideas for work procedures
12. improve upon the existing techniques to increase process efficiency

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a textile mill
KU2. procedure followed to get the final output in the mill

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- KU3.** safe working practices to be adopted in textile mill
- KU4.** reporting to the supervisor or higher authority about any grievances faced
- KU5.** the importance of the previous and next step of the process
- KU6.** process flow in a textile mill and the concerned workers
- KU7.** material flow in a textile mill and the required person
- KU8.** functions of different parts of the machine
- KU9.** tools and equipments used
- KU10.** guidelines for operating the machine
- KU11.** safety procedures to be followed in the machine

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences
- GS2.** write daily work report
- GS3.** write grievance complaint application
- GS4.** comprehend written instructions
- GS5.** read any application sent by other colleagues
- GS6.** communicate with supervisor appropriately
- GS7.** talk to co-workers to convey information effectively
- GS8.** identify the real reason of problem faced
- GS9.** be able to find the most effective solution to the problems faced
- GS10.** apply good attention to detail
- GS11.** ensure every kind of communication is error free
- GS12.** communicate effectively
- GS13.** apply leadership skills wherever required
- GS14.** take initiative at the right place
- GS15.** understand the requirement to be creative

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Commitment and trust</i>	5	4	-	2
1. be accountable to the own role in whole process	2	1	-	1
2. perform all roles with full responsibility	2	1	-	1
3. be effective and efficient at workplace	1	2	-	-
<i>Communication</i>	6	7	-	4
4. properly communicate about company policies	1	2	-	1
5. report all problems faced during the process	1	2	-	1
6. talk politely with other team members and colleagues	2	1	-	1
7. submit daily report of own performance	2	2	-	1
<i>Adaptability</i>	5	4	-	3
8. adjust in different work situations	1	1	-	1
9. give due importance to other's point of view	2	1	-	1
10. avoid conflicting situations	2	2	-	1
<i>Creative freedom</i>	3	5	-	2
11. develop new ideas for work procedures	1	3	-	1
12. improve upon the existing techniques to increase process efficiency	2	2	-	1
NOS Total	19	20	-	11

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9002
NOS Name	Working in a team
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

Qualification Pack

TSC/N9003: Maintain health, safety and security at workplace

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 procedures to prevent, control and minimize risk to self and others.

Scope

This unit/task covers the following:

- comply with health, safety and security requirements at work
- Recognizing the hazards
- Planning the safety techniques
- Implementing the programs

Elements and Performance Criteria

Comply with health, Safety and security requirements at work

To be competent, the user/individual on the job must be able to:

1. comply with health and safety related instructions applicable to the workplace
2. use and maintain personal protective equipment such as ear plug, nose mask, head cap etc., as per protocol
3. carry out own activities in line with approved guidelines and procedures
4. maintain a healthy lifestyle and guard against dependency on intoxicants
5. follow environment management system related procedures
6. identify and correct (if possible) malfunctions in machinery and equipment
7. report any service malfunctions that cannot be rectified
8. store materials and equipment in line with organisational requirements
9. safely handle and remove waste
10. minimize health and safety risks to self and others due to own actions
11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks
12. monitor the workplace and work processes for potential risks and threat
13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned
14. report hazards and potential risks/ threats to supervisors or other authorized personnel
15. participate in mock drills/ evacuation procedures organized at the workplace
16. undertake first aid, fire-fighting and emergency response training, if asked to do so
17. take action based on instructions in the event of fire, emergencies or accidents
18. follow organisation procedures for shutdown and evacuation when required

Recognizing the hazards

To be competent, the user/individual on the job must be able to:

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19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry
20. recognise other possible security issues existing in the workplace

Planning the safety techniques Implementing the programs

To be competent, the user/individual on the job must be able to:

21. recognise different measures to curb the hazards
22. communicate the safety plan to everyone
23. attach disciplinary rules with the implementation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a textile mill
- KU2.** safe working practices to be adopted in textile mill
- KU3.** quality systems and other processes practiced in the textile mill
- KU4.** health and safety related practices applicable at the workplace
- KU5.** potential hazards, risks and threats based on nature of operations
- KU6.** organizational procedures for safe handling of equipment and machine operations
- KU7.** potential risks due to own actions and methods to minimize these
- KU8.** environmental management system related procedures at the workplace
- KU9.** layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points
- KU10.** potential accidents and emergencies and response to these scenarios
- KU11.** reporting protocol and documentation required
- KU12.** details of personnel trained in first aid, fire-fighting and emergency response
- KU13.** actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire
- KU14.** occupational health and safety risks and methods
- KU15.** personal protective equipment and method of use
- KU16.** identification, handling and storage of hazardous substances
- KU17.** proper disposal system for waste and by-products
- KU18.** signage related to health and safety and their meaning
- KU19.** importance of sound health, hygiene and good habits
- KU20.** ill-effects of alcohol, tobacco and drugs

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences
- GS2.** read and understand the company instructions

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- GS3.** read and understand work instructions
- GS4.** read and understand the safety guidelines
- GS5.** listen to others attentively
- GS6.** respond to emergencies, accidents or fire at the workplace
- GS7.** evacuate the premises and help others in need while doing so
- GS8.** the value of physical fitness, personal hygiene and good habits
- GS9.** talk with others politely
- GS10.** identify correct safety measure for particular hazard
- GS11.** make required safety plans as and when required
- GS12.** raise alarm in case of emergency
- GS13.** know the use of correct safety measure whenever required
- GS14.** be attentive to details
- GS15.** be careful to avoid occurrence of hazards
- GS16.** maintenance of neatness at work
- GS17.** procedure for reporting unwanted behavior

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Comply with health, Safety and security requirements at work</i>	27	35	-	23
1. comply with health and safety related instructions applicable to the workplace	2	2	-	2
2. use and maintain personal protective equipment such as ear plug, nose mask , head cap etc., as per protocol	2	2	-	2
3. carry out own activities in line with approved guidelines and procedures	2	2	-	2
4. maintain a healthy lifestyle and guard against dependency on intoxicants	2	2	-	2
5. follow environment management system related procedures	2	2	-	2
6. identify and correct (if possible) malfunctions in machinery and equipment	2	2	-	1
7. report any service malfunctions that cannot be rectified	2	2	-	1
8. store materials and equipment in line with organisational requirements	2	2	-	1
9. safely handle and remove waste	2	2	-	1
10. minimize health and safety risks to self and others due to own actions	1	2	-	1
11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks	1	2	-	2
12. monitor the workplace and work processes for potential risks and threat	1	2	-	1
13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned	1	2	-	1
14. report hazards and potential risks/ threats to supervisors or other authorized personnel	1	2	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
15. participate in mock drills/ evacuation procedures organized at the workplace	1	2	-	-
16. undertake first aid, fire-fighting and emergency response training, if asked to do so	1	2	-	1
17. take action based on instructions in the event of fire, emergencies or accidents	1	2	-	1
18. follow organisation procedures for shutdown and evacuation when required	1	1	-	1
<i>Recognizing the hazards</i>	2	2	-	2
19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry	1	1	-	1
20. recognise other possible security issues existing in the workplace	1	1	-	1
<i>Planning the safety techniques Implementing the programs</i>	3	3	-	3
21. recognise different measures to curb the hazards	1	1	-	1
22. communicate the safety plan to everyone	1	1	-	1
23. attach disciplinary rules with the implementation	1	1	-	1
NOS Total	32	40	-	28

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9003
NOS Name	Maintain health, safety and security at workplace
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

Qualification Pack

TSC/N9004: Comply with industry and organizational requirement

Description

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

Scope

This unit/task covers the following:

- self development
- team work
- organizational standards
- industry standards

Elements and Performance Criteria

Self development

To be competent, the user/individual on the job must be able to:

1. perform own duties effectively
2. take responsibility for own actions
3. be accountable towards the job role and assigned duties
4. take initiative and innovate the existing methods
5. focus on self-learning and improvement

Team work

To be competent, the user/individual on the job must be able to:

6. co-ordinate with all the team members and colleagues
7. communicate politely
8. avoid conflicts and miscommunication

Organisational standards

To be competent, the user/individual on the job must be able to:

9. know the organisational standards
10. implement them in your performance
11. motivate others to follow them

Industry standards

To be competent, the user/individual on the job must be able to:

12. monitor the workplace and work processes for potential risks and threat
13. align them with organisation standards

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** standard operating procedures (SOP) and regulations in a textile mill
- KU2.** reporting to the supervisor or higher authority
- KU3.** knowledge of organisational standards
- KU4.** knowledge of industry standards
- KU5.** process and material flow in a textile mill
- KU6.** importance of complying with the standards
- KU7.** guidelines for cleaning the various parts of machine

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences
- GS2.** read the given instructions
- GS3.** comprehend written instructions
- GS4.** talk effectively with others
- GS5.** put forward your point
- GS6.** listen to others
- GS7.** Organizational requirements
- GS8.** your responsibilities at the workplace
- GS9.** procedure to comply with the industry standards

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Self development</i>	5	9	-	7
1. perform own duties effectively	1	2	-	2
2. take responsibility for own actions	1	2	-	2
3. be accountable towards the job role and assigned duties	1	2	-	1
4. take initiative and innovate the existing methods	1	1	-	1
5. focus on self-learning and improvement	1	2	-	1
<i>Team work</i>	3	5	-	4
6. co-ordinate with all the team members and colleagues	1	2	-	1
7. communicate politely	1	1	-	2
8. avoid conflicts and miscommunication	1	2	-	1
<i>Organisational standards</i>	3	4	-	3
9. know the organisational standards	1	1	-	1
10. implement them in your performance	1	2	-	1
11. motivate others to follow them	1	1	-	1
<i>Industry standards</i>	4	2	-	1
12. monitor the workplace and work processes for potential risks and threat	2	1	-	-
13. align them with organisation standards	2	1	-	1
NOS Total	15	20	-	15

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9004
NOS Name	Comply with industry and organizational requirement
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N5104.Taking charge of shift and handing over shift to Continuous Bleaching Range Operator	2	49	-	5	56	13
TSC/N5105.Operating the Continuous Bleaching Range Machine	8	78	-	14	100	24
TSC/N5106.Checking the quality of Bleached Fabric	3	8	-	3	14	3

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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N9001.Maintain work area, tools and machines	17	20	-	13	50	12
TSC/N9002.Working in a team	19	20	-	11	50	12
TSC/N9003.Maintain health, safety and security at workplace	32	40	-	28	100	24
TSC/N9004.Comply with industry and organizational requirement	15	20	-	15	50	12
Total	96	235	-	89	420	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

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Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) 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 (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a 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 quality of performance required.

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Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation 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 (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment 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.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.