QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR RUBBER INDUSTRY

Contents

What are Occupational Standards(OS)?

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

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Introduction

Qualifications Pack- Tyre Component Stock Preparation Operator

(Option: *Stock Preparation Operator-Steel Reinforcement*)

SECTOR: RUBBER INDUSTRY

SUB-SECTOR: Tyre

OCCUPATION: Tyre Building

REFERENCE ID: RSC/Q2509

ALIGNED TO: NCO-2015/NIL

Brief Job Description: A Tyre Component Stock Preparation Operator is responsible to carry out ply cutting, squeeze (thin rubber layer) application on ply and also ply top ply assembly, wire cutting and slitting operations. He undertakes cutting the calendered fabric sheet and the coated wire fabric in the required specific dimensions using the ply /bias cutter (Bias cutter/Low angle bias cutters) and wire fabric cutter; and slit the rubberized fabric along the cord direction in the required specific widths using a slitting machine. He is also responsible for storing the cut plies, coated wire stock in appropriate storage for facilitating usage at the tyre building.

Options:

Stock Preparation Operator-Steel Reinforcement is performing steel cord cutting operation using the appropriate cutting tools and machine.

Personal Attributes: This job requires the individual to be focused and seek perfection in achieving specific dimensions. He should be attentive, careful and energetic. He should be able to work independently under the guidance of supervisor. He should be fit and be comfortable in performing physical labour intensive work as well as operate machines efficiently.

Job Details

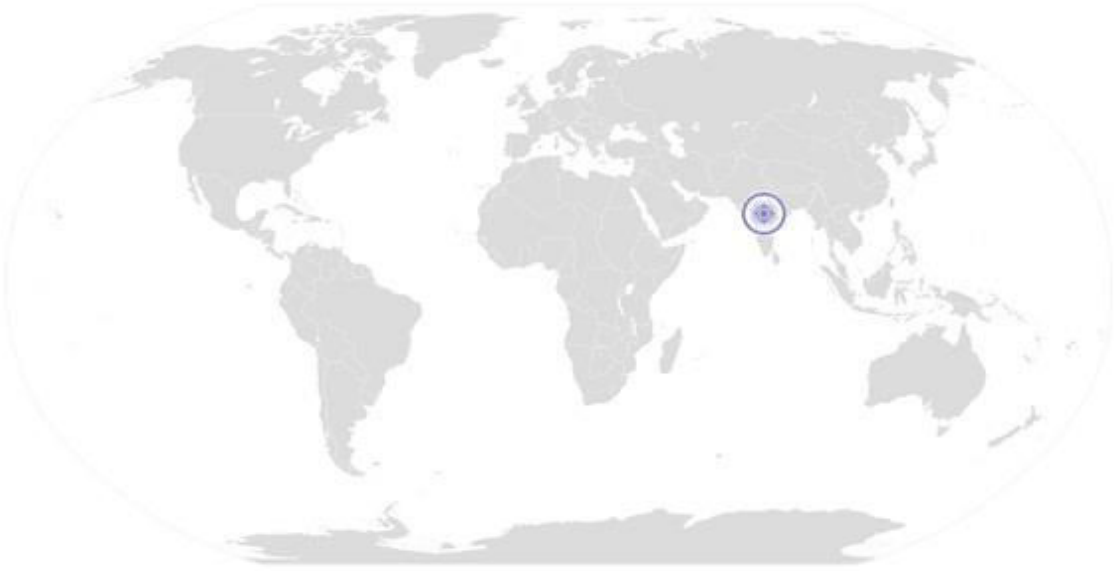
Qualifications Pack Code	**RSC/Q2509**		
Job Role	**Tyre Component Stock Preparation Operator**		
Credits(NSQF)	**TBD**	**Version number**	**2.0**
Sector	**Rubber Manufacturing**	**Drafted on**	**02/12/2014**
Sub-sector	**Tyre**	**Last reviewed on**	**20/12/2017**
Occupation	**Tyre Building**	**Next review date**	**20/12/2020**
NSQC Clearance on			

Job Role	**Tyre Component Stock Preparation Operator**
Role Description	A Tyre Component Stock Preparation Operator is responsible to carry out ply cutting, squeeze application on ply a, wire cutting and slitting operations. He undertakes cutting the calendered fabric sheet and the coated wire fabric in the required specific dimensions using the ply /bias cutter and wire fabric cutter; and slit the rubberized fabric along the cord direction in the required specific widths using a slitting machine.
NSQF level **Minimum Educational Qualifications*** **Maximum Educational Qualifications***	4 Class VIII Pass
Prerequisite License or Training	NA
Minimum Job Entry Age	18 years
Experience	Worked as a semi-skilled helper for 3-6 months the same or similar process
Applicable National Occupational Standards (NOS)	**Compulsory:** 1. RSC/N2525 - Prepare material, tools and machine for stock preparation 2. RSC/N2526 - Perform stock preparation operation 3. RSC/N2527 - Perform post-stock preparation activities 4. RSC/N5001 - Carry out housekeeping in rubber product manufacturing 5. RSC/N5002 - Carry out reporting and documentation 6. RSC/N5003 - Carry out quality checks 7. RSC/N5004 - Carry out problem identification and escalation 8. RSC/N5013 - Carry out health and safety **Options (not mandatory):** **Option 1** (Steel Reinforcement) 9. RSC/N1105 - Perform steel cord cutting operation
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
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 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	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.
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.
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.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.

National Occupational Standard



Overview

This unit is about preparing material, tools and machine to carry out ply cutting, wire cutting and slitting operations.

National Occupational Standard

Unit Code	RSC/N2525
Unit Title (Task)	**Prepare material, tools and machine for stock preparation**
Description	This unit is about preparing material, tools and machine to carry out ply cutting, wire cutting and slitting operations.
Scope	This unit/task covers the following: • Prepare the cutting and slitting tools, equipments and machine • Get the required material calendared and coated wire fabric to carry out cutting and slitting operations • Ensure housekeeping and safety in stock preparation area
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Equipment readiness	To be competent, the user/individual on the job must be able to PC1. ensure the availability of all required tools for stock preparation. PC2. ensure that the tools are clean and well sharpen. PC3. check that the slitting machine and its accessories are operational PC4. set parameters for the machine as per the organizational SOP. PC5. place the tools on a safe location. PC6. check the sharpness of the blade for the cutting purpose. PC7. ensure that the knife carriage and the cutting blade are in perfect working condition. PC8. clean the table on which ply cutting is carried out PC9. ensure that the let off and wind up units are operational
Raw material appropriateness	PC10. ensure that calendared and coated fabric to be cut and slitted is approved by the laboratory. PC11. check the availability of fabric rolls with reference to the job schedule given by the planning department. PC12. load the calendered fabric required for ply cutting on the ply cutter let off stand PC13. unwind the liner , pull the calendered sheet manually on to the bias cutter table PC14. ensure empty liners are available for winding up the cut plies PC15. in case of band building ensure that the band building machine is operational and ready for accepting cut plies PC16. place the coated fabric properly for cutting for desired specification PC17. place the calendered fabric rolls in the order of slitting preference
Health & Safety	PC18. ensure the use of certified/tested cutting hand tools and machine and check their functioning. PC19. check if the Chain hoist is certified for lifting the roll weight and is safe enough for operation PC20. ensure safety ropes for emergency stops are operational PC21. adhere to all safety norms (such as wearing protective gloves, masks and shoes). PC22. comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Implications of poorly prepared (less sharpen) tools and machine. KA2. Implications of poor /broken bias cutter blade KA3. Implication of wrong /incorrect cutting angle on the quality of tyre KA4. Implications of cutting the defective fabric KA5. Importance of identifying non-conforming materials and their storage. KA6. Risk and impact of not following defined procedures/work instructions. KA7. Escalation matrix for reporting identified problems KA8. Records to be maintained and the implications of their non-maintenance. KA9. Importance of housekeeping activities. KA10. Health, safety and environment guidelines, legislation and regulations as applicable. KA11. Personal protection (which protective equipment to be used and how). KA12. Importance of FIFO KA13. Impact of poor practices on health, safety and environment. KA14. Potential hazards and actions to minimize them. KA15. The escalation matrix and procedures for reporting hazard KA16. Impact of various practices on cost, quality, productivity, delivery and safety. KA17. Handover/Takeover of the equipment/work area as per the organizational SOP.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Selection of a bias cutter on the quality of bias cut fabric and its importance. KB2. Impact of damaged or unsharpened knives KB3. Knowledge of handling calendared fabric sheets and roll KB4. Usage of automatic bias cutter and its various components KB5. Importance of proper angle setting of machine to achieve desired dimensions KB6. Effect of improper angle setting on ply cutting resulting in the loss of sheets and value loss KB7. Setting the parameters of cutting machine and loading of fabric roll KB8. Use of auto hold and release mechanism KB9. Importance of Guide light setting / plate guide KB10. Optimal utilization of material while undertaking cutting for different sizes KB11. Knowledge of using slitting machine and its various components KB12. Knowledge of slitting fabric with motorized slitter machines KB13. Knowledge of proper setting of machine to achieve desired dimensions KB14. Effect of improper setting on fabric resulting in the loss of material and value loss KB15. Optimal utilization of material while undertaking slitting of fabric KB16. Various abnormalities and suitable response for abnormalities in equipment performance. KB17. Implications of delays in the cutting and slitting process. KB18. Types of defects leading to rejections and their reasons and possible solutions. KB19. Cleanliness and safety requirements for commencing cutting operation. KB20. Units of measurement. KB21. Response to injuries while handling knives and cutter KB22. Knowledge of appropriate batch sizes with respect to requirement. KB23. Knowledge of first aid treatment to address any cut/injury

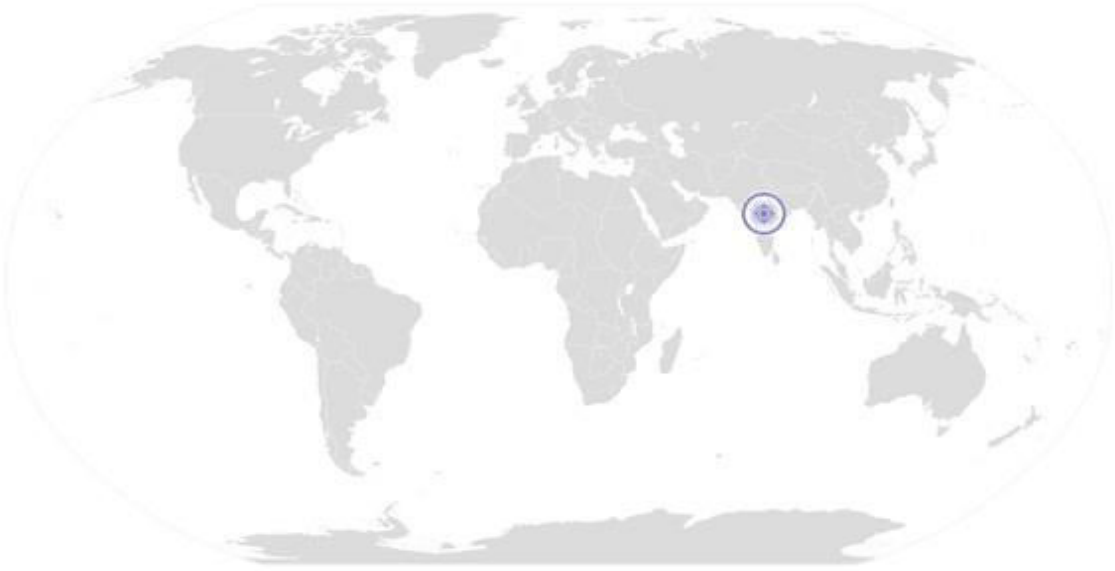
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes and prepare tags
	Reading Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication
	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in one's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**

	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.
	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer. SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customer's requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB20. Interpret quality for sheet SB21. Suggest improvements(if any) in process/product/materials based on results

	and experience
	Analytical Thinking
	SB22. Identify the problems pertaining to the sharpening of tools based on visual inspection and work efficiency SB23. Diagnose common problems in the machine based on visual inspection, sound, etc SB24. Suggest improvements(if any) in process based on experience SB25. Minimize wastage of fabric while cutting plies of different sizes and carrying out wire cutting and slitting operations
	Critical Thinking
	SB26. Seek clarification on problems from others SB27. Apply problem-solving approaches in different situations SB28. Refer anomalies to the line manager

NOS Version Control

NOS Code	**RSC/N2525**		
Credits(NSQF)	**TBD**	**Version number**	**2.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**02/12/2014**
Industry Sub-sector	**Tyre**	**Last reviewed on**	**20/12/2017**
Occupation	**Stock/Component Preparation**	**Next review date**	**20/12/2020**



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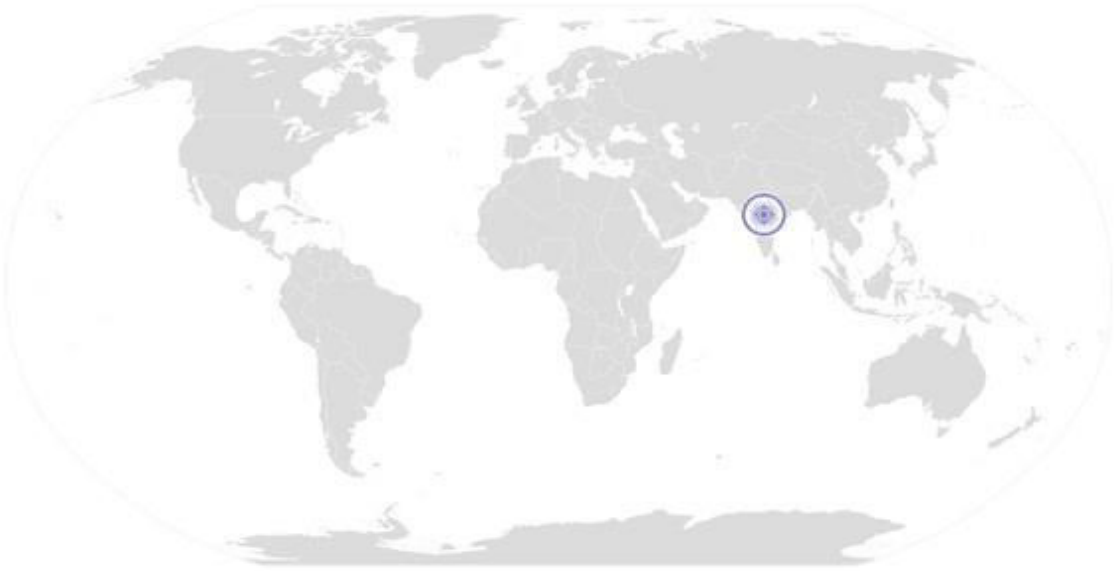
National Occupational Standard



Overview

This unit is about performing ply cutting, wire cutting and slitting operations using appropriate tools and machine.

National Occupational Standard

Unit Code	RSC/N2526
Unit Title (Task)	Perform stock preparation operation
Description	This unit is about performing ply cutting, wire cutting and slitting operations using appropriate tools and machine.
Scope	This unit/task covers the following: • Check the appropriateness of raw material • Carry out ply cutting • Undertake wire cutting using appropriate tool. • Undertake slitting of coated fabric. • Ensure housekeeping and safety in stock preparation area.

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Raw material appropriateness	To be competent, the user/individual on the job must be able to : PC1. Ensure, through visual inspections, that the calendered fabric and coated wire fabric is as per schedule PC2. Ensure all the required specifications for different plies with different lengths and angles are available PC3. Ensure that all the specifications required for the wire cutting and slitting during the shift is available PC4. Ensure wind up liners for cut plies are available PC5. Check if the rolls has been loaded and fabric centered to get the efficient productivity and cutting
Ply cutting operation	PC6. Ensure the setting of ply cutting angle and the length are as per specifications PC7. Use only calibrated measuring tape / angle protector PC8. Adjust the angle of the machine for bias cutting to cut the sheet in the appropriate dimension as specified PC9. Operate the bias cutting machine and the hand tools PC10. Cut plies as per the required specification PC11. Check the angle and the length of initial few pieces to confirm conformity to specification PC12. Verify angle setting by checking the angle on the cut plies using protractor PC13. Set the length and correctly splice over the edges (width to length transformation) –check for correctness PC14. Verify the lengths by checking lengths against specification-rectify if not correct PC15. Monitor the machine properly and look for wavy/haggard cuts .Also look for knife carriage damaging the fabric
Wire Cutting operation	PC16. adjust the angle of the wire cutter to cut the sheet in the appropriate dimension as specified PC17. ensure magnetic clamping device is operational to hold for auto cutting and release the fabric for travel until next cut PC18. monitor the machine properly during the cutting operation. PC19. cut size of coated wire fabric sheet is as per specified dimension

Slitting Operation	PC20. Slit the rubberized fabric longitudinally along the (warp) cord direction. PC21. Set the width of the slitter blades as per specification requirement PC22. Monitor the machine properly during the slitting operation PC23. Individual strips of the slitted rubberized fabric are wound on reels/Bobbins/card board shells, as directed by technical or thru SOP PC24. In case a finer strips are required, it is sent to another machine capable of further slitting to narrow widths as per the requirement
Health & Safety	PC25. Handle the sheet and ply using hand gloves and other safety equipment. PC26. Proper handling of machine and tools to avoid any injury/accident PC27. Adhere to all safety norms (such as wearing protective gloves and shoes, etc) PC28. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	The user/individual on the job needs to know and understand: KA1. Cutting and slitting operations and their importance. KA2. Implications of poorly prepared tools. KA3. The material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure. KA4. How to conduct quality and damage checks and their importance. KA5. Importance of identifying non-conforming products and their storage. KA6. Risk and impact of not following defined procedures/work instructions. KA7. The escalation matrix for reporting identified issues. KA8. Types of documentation in the organization and their importance. KA9. Records to be maintained and the implications of their non-maintenance. KA10. Importance of housekeeping & good shop floor practices KA11. Health, safety and environment guidelines, legislations and regulations, as applicable. KA12. Personal protection (which protective equipment to be used and how). KA13. Impact of poor practices on health, safety and environment. KA14. Potential hazards and actions to minimize them. KA15. The escalation matrix and procedures for reporting hazards. KA16. Importance of FIFO KA17. Impact of various practices on cost, quality, productivity, delivery and safety. KA18. Handover/Takeover of the equipment/work area as per organizational SOP.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Cutting and slitting operation using tools and machines properly. KB2. Cleanliness and safety requirements for commencing cutting and slitting operation. KB3. Importance of inspecting cutter blade for improper or rough cutting and avoid wrinkling of fabric due to damaged cutting blade KB4. Operation of cutting and slitting machine (equipment working, possible setting levels and typical processes followed for different fabric). KB5. Functioning of knives, cutting blades and their appropriate sharpness KB6. Proper angle setting of machine to achieve desired dimensions KB7. Effect of improper angle setting on ply cutting and wire cutting resulting in the loss of sheets and value loss KB8. Effects of improper size cutting on the dimensions of final product and its

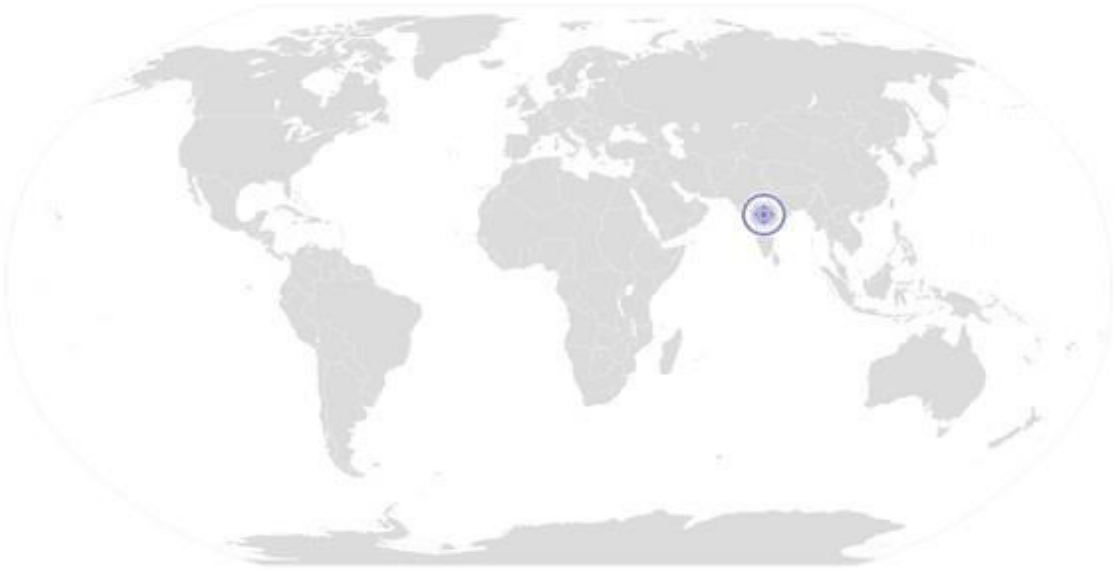
	performance during service. KB9. Functioning of magnetic clamping device KB10. Use of auto hold and release mechanism KB11. Proper handling of rolls KB12. Importance of Guide light setting / plate guide KB13. Effects of improper slitting on the properties of final product. KB14. The process and importance of quality checks. KB15. Types of defects leading to rejections and their indicators, reasons and possible solutions. KB16. Potential problems in the cutting operation. KB17. Units of measurement. KB18. Knowledge of first aid treatment to respond to injuries. KB19. Knowledge of cutting appropriate piece sizes with respect to appropriate tools and machinery.
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills** The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Write simple letters, email etc SA3. Fill up appropriate forms and activity logs in required format of the company SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills **Integrity** SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust

	Motivation SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in one's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.
	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer.

	SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customer's requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB20. Interpret quality for sheet SB21. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB22. Identify the problems pertaining to the sharpening of tools based on visual inspection and work efficiency SB23. Diagnose common problems in the machine based on visual inspection, sound, etc SB24. Suggest improvements(if any) in process based on experience SB25. Minimize wastage of fabric while cutting plies of different sizes and carrying out wire cutting and slitting operations
	Critical Thinking
	SB26. seek clarification on problems from others SB27. apply problem-solving approaches in different situations SB28. refer anomalies to the line manager

NOS Version Control

NOS Code	RSC/N2526		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre	Last reviewed on	20/12/2017
Occupation	Tyre Building	Next review date	20/12/2020



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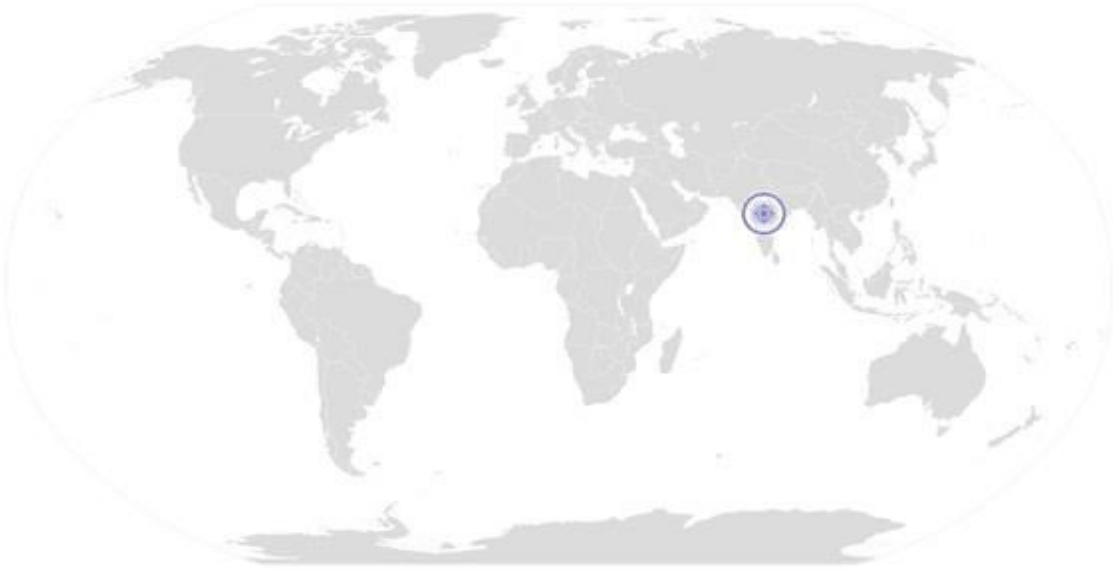
National Occupational Standard



Overview

This unit is about performing activities undertaken after cutting and slitting operations.

National Occupational Standard

Unit Code	RSC/N2527
Unit Title (Task)	Perform post stock preparation activities
Description	This unit is about performing activities undertaken after cutting and slitting operations.
Scope	This unit/task covers the following: • Operation • Material disposal • Batch Marking • Sampling • Health & Safety

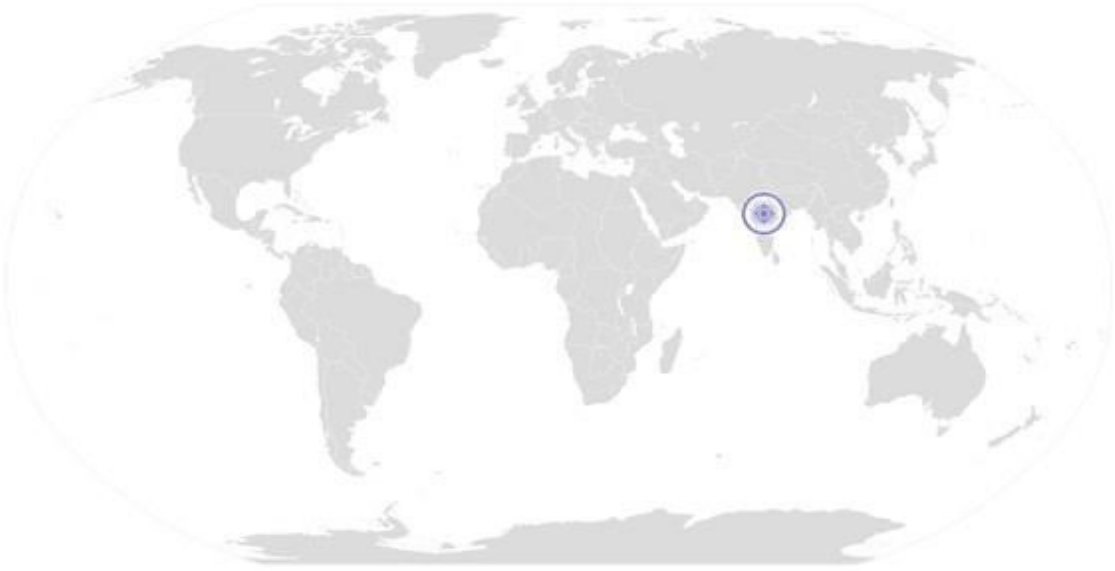
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Operation	To be competent, the user/individual on the job must be able to PC1. clean tools and keep the tools at designated place after the completion of cutting operation. PC2. ensure no left over of the sheet on the table after the completion of ply cutting PC3. wrap the spliced cut plies in small liners PC4. in case of simultaneous band building , send the cut plies through take away conveyors for the band builder to pick and use PC5. report to the supervisor if the angle or length settings keep varying from machine set up PC6. ensure each ply rolls /bands are clearly identified /tagged PC7. send plies to band building or tyre building as required by specification PC8. wrap the cut wires on liners PC9. organize to keep the cut wire plies /bands appropriately. PC10. remove remaining portions of the coated wire fabric from the cutting area; send the wastage to the appropriate place for re-use or disposal PC11. Send cut wires to band building or tyre building as required by the specification PC12. organize to keep the slitted fabric appropriately. PC13. remove remaining portions of the coated fabric from the stock preparation area; send the wastage to the appropriate place for re-use or disposal PC14. place all the empty bobbins, shells , square bars, poly ethylene at designated place once slitting schedule is met PC15. send slitted rolls to tyre building/store as required by the production schedule PC16. report any problem related to tools and machine to the Supervisor
Material disposal	PC17. dispose waste material safely, as per organizational SOP.
Batch Marking	PC18. ensure identification and traceability by batch marking/coding for the right product as per the instructions laid down by the company (in terms of code, ply number and date stamp).
Sampling	PC19. send samples in specified form for testing.
Health & Safety	PC20. handle the material using hand gloves and other safety equipment. PC21. adhere to all safety norms (such as wearing protective gloves, shoes, safety goggles etc).

	PC22. comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Implications of inappropriately cut plies and wires; and slitted fabric. KA2. Significance of code marking/identification. KA3. Importance of identifying non-conforming products and their storage. KA4. Risk and impact of not following defined procedures/work instructions. KA5. The escalation matrix and procedures for reporting identified problems. KA6. Types of documentation in the organization and their importance. KA7. Records to be maintained and the implications of their non-maintenance. KA8. Importance of housekeeping & good shop floor practices KA9. Health, safety, and environment guidelines, legislations and regulations as applicable. KA10. Personal protection (which protective equipment to be used and how). KA11. Importance of FIFO KA12. Potential hazards and actions to minimize them. KA13. Impact of poor practices on health, safety and environment. KA14. The escalation matrix and procedures for reporting hazards. KA15. Handover/Takeover of the equipment/work area as per organizational SOP.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Appropriate method for keeping the cut ply, cut wire plies and slitted fabric. KB2. Methods for removing remaining portions from the cutting area. KB3. Process and importance of dimensional and quality checks. KB4. Proper usage of Reel/Bobbins/card board shells portions. KB5. Code marking techniques. KB6. Implications of incorrect code marking. KB7. Implications of inappropriate waste disposal. KB8. Types of defects leading to rejections and their indicators, reasons and possible solutions. KB9. Units of measurement. KB10. Coding systems for identification and traceability. KB11. Usage of protractor and tape measure KB12. Knowledge of the storage life of product KB13. The usage of placing different types of identification tags
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills** The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas through written communication SA2. Fill up appropriate forms and activity logs in required format of the company SA3. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes **Reading Skills**

	SA4. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA5. Read images, graphs, diagrams SA6. Understand the various coding systems as per company norms
	Oral Communication
	SA7. Express statements, opinions or information clearly so that others can hear and understand SA8. Understand instructional language of the organization SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision.

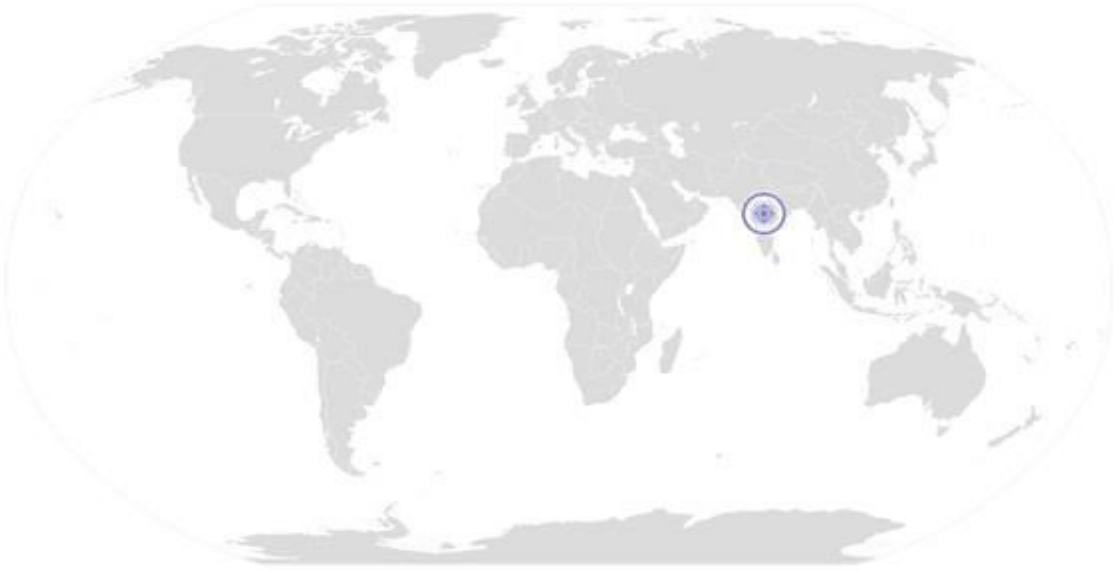
	SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.
	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer. SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customer's requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB20. Interpret quality for sheet SB21. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB22. Identify the problems pertaining to the sharpening of tools based on visual inspection and work efficiency SB23. Diagnose common problems in the machine based on visual inspection, sound, etc SB24. Suggest improvements(if any) in process based on experience SB25. Minimize wastage of fabric while cutting plies of different sizes and carrying out wire cutting and slitting operations
	Critical Thinking

	SB26. Seek clarification on problems from others SB27. Apply problem-solving approaches in different situations SB28. Refer anomalies to the line manager



NOS Version Control

NOS Code	**RSC/N2527**		
Credits(NSQF)	**TBD**	**Version number**	**2.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**02/12/2014**
Industry Sub-sector	**Tyre**	**Last reviewed on**	**20/12/2017**
Occupation	**Tyre Building**	**Next review date**	**20/12/2020**



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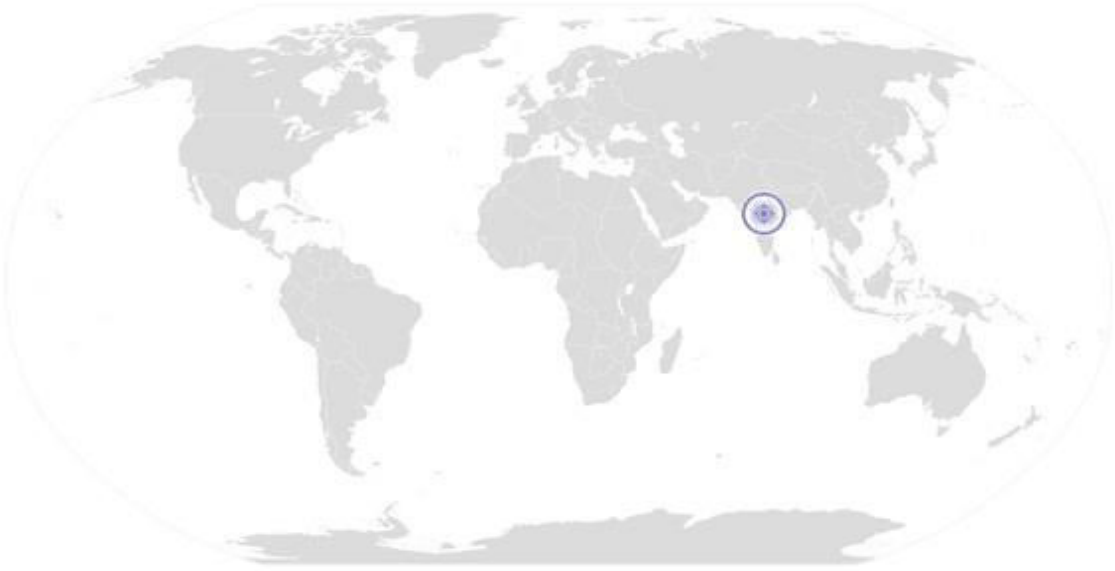


Overview

This unit is about carrying out housekeeping

National Occupational Standard

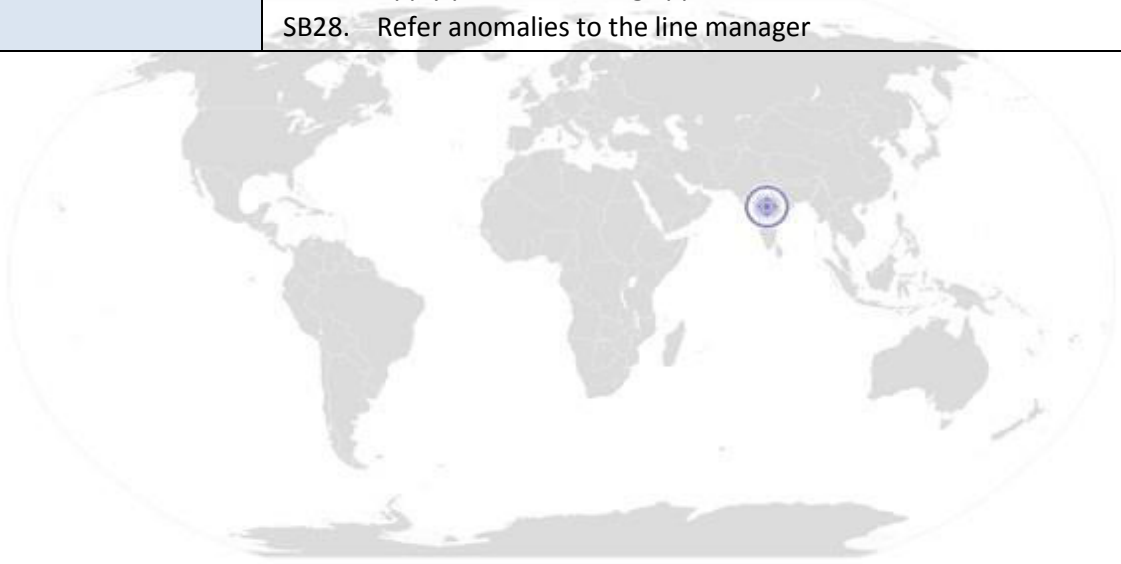
Unit Code	RSC/N5001
Unit Title (Task)	**Carry out housekeeping in rubber product manufacturing**
Description	This unit is about carrying out housekeeping activities
Scope	This unit/task covers the following: • Preparing for housekeeping activities • Carry out housekeeping operation • Post housekeeping activities • General
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Pre housekeeping activities	To be competent, the user/individual on the job must be able to: PC1. Inspect the area while taking into account various surfaces PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain PC3. Ensure that the cleaning equipment is in proper working condition PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces PC6. Inform the affected people about the cleaning activity PC7. Display the appropriate signage for the work being conducted PC8. Ensure that there is adequate ventilation for the work being carried out PC9. Wear the personal protective equipment required for the cleaning method and materials being used
Operations	PC10. Use the correct cleaning method for the work area, type of soiling and surface PC11. Carry out cleaning activity without disturbing others PC12. Deal with accidental damage, if any, caused while carrying out the work PC13. Report to the appropriate person any difficulties in carrying out your work PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill
Post housekeeping activities	PC15. Ensure that there is no oily substance on the floor to avoid slippage PC16. Ensure that no scrap material is lying around PC17. Maintain and store housekeeping equipment and supplies PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored PC21. Dispose the waste garnered from the activity in an appropriate manner PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly

General	PC23. Maintain schedules and records for housekeeping duty PC24. Replenish any necessary supplies or consumables
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	KA1. Importance of learning proper procedures and techniques KA2. Implications of not following the organizational requirement for approval for undertaking the specific task KA3. Importance of completing the activities as per the schedule KA4. Implications of not following the defined procedures/work instructions KA5. Importance of team work KA6. Health, Safety and Environment guidelines, legislation and regulations as applicable KA7. Actions to be taken in case of non-conformity to behavioral standards of the organization KA8. Impact of poor practices on the individual's and organization's performance KA9. Importance of optimal utilization of resources KA10. Importance of providing feedback for improvement KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization KA13. Importance of documentation/reporting as per guidelines and procedures KA14. Knowledge of do's and don'ts (company's HR instructions) KA15. Importance of attending trouble shooting KA16. Importance of subject learning/ training KA17. Importance of Product and its application
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. The levels of hygiene required by workplace and why it is important to maintain them during your work KB2. How to inspect a work area to decide what cleaning it needs KB3. Methods and materials that used for cleaning variety of surfaces KB4. The types of cleansing agents that are not to be mixed together KB5. The correct method for cleaning equipment and/or machinery used during your work KB6. The importance of personal protective equipment KB7. Appropriate personal protective equipment for the work area, cleaning equipment, tools, materials and chemicals used KB8. The correct sequence for cleaning the work area KB9. The time taken by the treatment to work KB10. The importance of following manufacturer's instructions on cleaning agents KB11. The most appropriate place to carry out test cleans and why this should be done before applying treatments KB12. The importance of applying treatments evenly and the effect of not doing this KB13. Process of cleaning the surfaces without causing injury or damage KB14. The method to check the treated surface and equipment on completion of cleaning KB15. Procedures for reporting any unidentified soiling KB16. Procedures for disposing off waste KB17. Procedures for disposing off or storing personal protective equipment

	KB18. Escalation procedures for soils or stains that could not be removed
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication
	The user/individual on the job needs to know and understand how to: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in one's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual

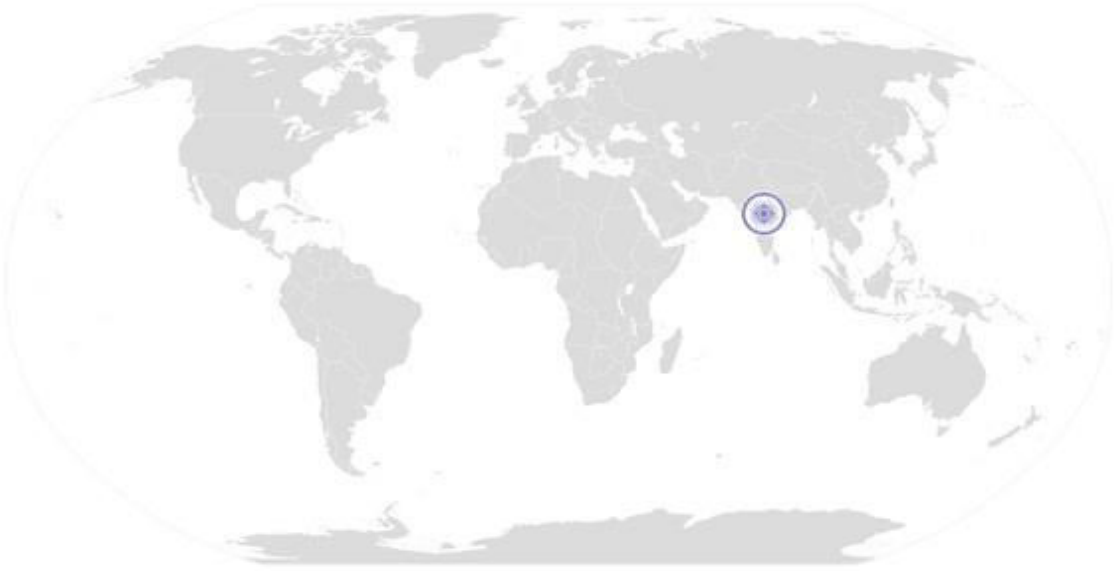
B. Professional Skills	**Decision Making**
	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.
	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer. SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customer's requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving

	SB20. Interpret quality for sheet SB21. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB22. Identify the problems pertaining to the sharpening of tools based on visual inspection and work efficiency SB23. Diagnose common problems in the machine based on visual inspection, sound, etc SB24. Suggest improvements(if any) in process based on experience SB25. Minimize wastage of fabric while cutting plies of different sizes and carrying out wire cutting and slitting operations
	Critical Thinking
	SB26. Seek clarification on problems from others SB27. Apply problem-solving approaches in different situations SB28. Refer anomalies to the line manager



NOS Version Control

NOS Code	RSC/N5001		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre	Last reviewed on	20/12/2017
Occupation	Tyre Building	Next review date	20/12/2020



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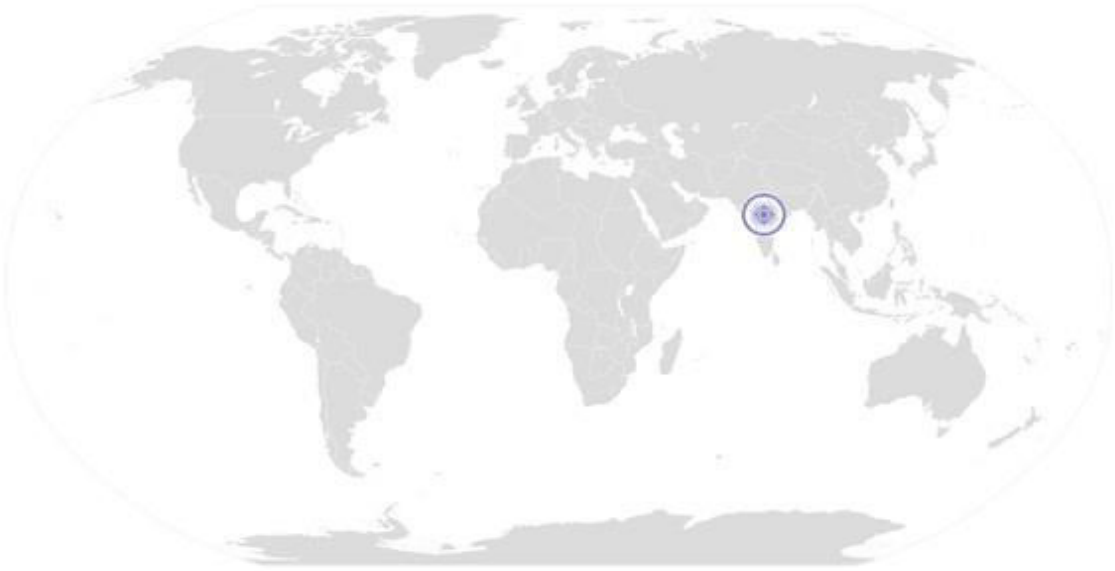


Overview

This unit is about reporting and documentation

National Occupational Standard

Unit Code	RSC/N5002
Unit Title (Task)	Carry out reporting and documentation
Description	This unit is about carrying out reporting and documentation
Scope	This unit/task covers the following: • Reporting of data/problem/incidents etc • Documentation • Information Security

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Reporting	To be competent, the user/individual on the job must be able to: PC1. Report data/problems/incidents as applicable in a timely manner PC2. Report to the appropriate authority as laid down by the company PC3. Follow reporting procedures as prescribed by the company
Recording and Documentation	PC4. Identify documentation to be completed relating to one's role PC5. Record details accurately an appropriate format PC6. Complete all documentation within stipulated time according to company procedure PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly PC8. Make sure documents are available to all appropriate authorities to inspect
Information Security	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures PC10. Inform the appropriate authority of requests for information received

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	KA1. Importance of learning proper procedures and techniques KA2. Implications of not following the organizational requirement for approval for undertaking the specific task KA3. Importance of completing the activities as per the schedule KA4. Implications of not following the defined procedures/work instructions KA5. Importance of team work KA6. Health, Safety and Environment guidelines, legislation and regulations as applicable KA7. Actions to be taken in case of non-conformity to behavioral standards of the organization KA8. Impact of poor practices on the individual's and organization's performance KA9. Importance of optimal utilization of resources KA10. Importance of providing feedback for improvement KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization KA13. Importance of documentation/reporting as per guidelines and procedures KA14. Knowledge of do's and don'ts (company's HR instructions) KA15. Importance of attending trouble shooting

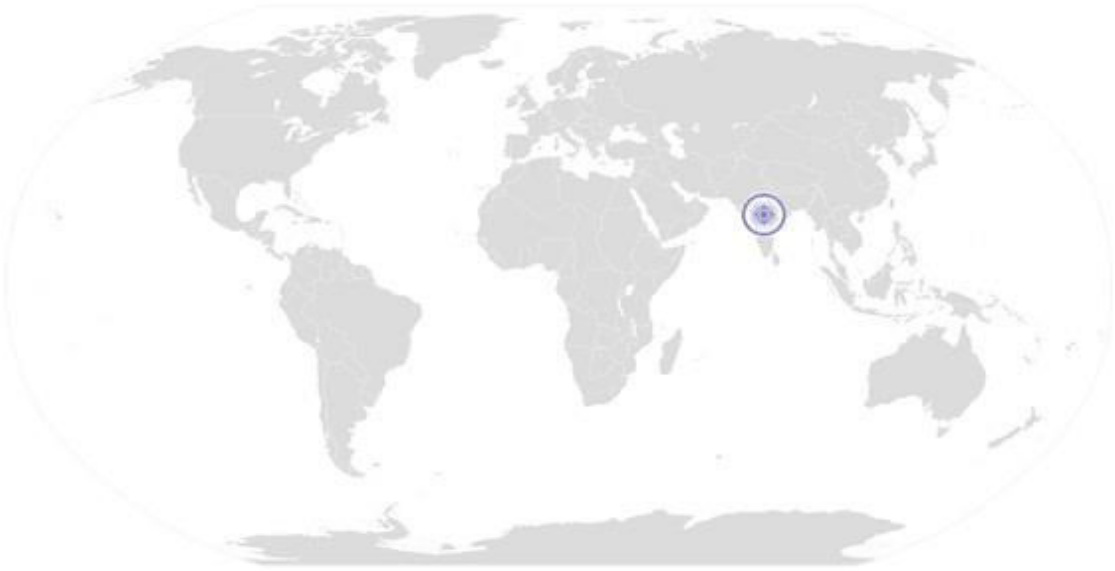
	KA16. Importance of subject learning/ training KA17. Importance of Product and its application
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Different methods of recording information KB2. Various documents that need to be maintained KB3. Company procedure for filling/maintaining up the documents KB4. Procedures for reporting to the appropriate authority KB5. Procedures for recording damage, breakages etc KB6. Reporting incidents where standard operating procedures are not followed KB7. The importance of complete and accurate documentation KB8. How to maintain complete documentation accurately and within agreed timescales KB9. The importance of ensuring that the documents are correct KB10. The actions to be taken if the documents are not correct KB11. The importance of maintaining the security and confidentiality of recorded information KB12. Procedures to maintain confidentiality of information KB13. The appropriate method for responding to requests for information KB14. The reporting procedures to followed before disclosing information to any outside party
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication
	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills

	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust
	Motivation SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.

	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer. SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customer's requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB20. Interpret quality for sheet SB21. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB22. Identify the problems pertaining to the sharpening of tools based on visual inspection and work efficiency SB23. Diagnose common problems in the machine based on visual inspection, sound, etc SB24. Suggest improvements(if any) in process based on experience SB25. Minimize wastage of fabric while cutting plies of different sizes and carrying out wire cutting and slitting operations
	Critical Thinking
	SB26. Seek clarification on problems from others SB27. apply problem-solving approaches in different situations SB28. refer anomalies to the line manager

NOS Version Control

NOS Code	RSC/N5002		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre	Last reviewed on	20/12/2017
Occupation	Tyre Building	Next review date	20/12/2020



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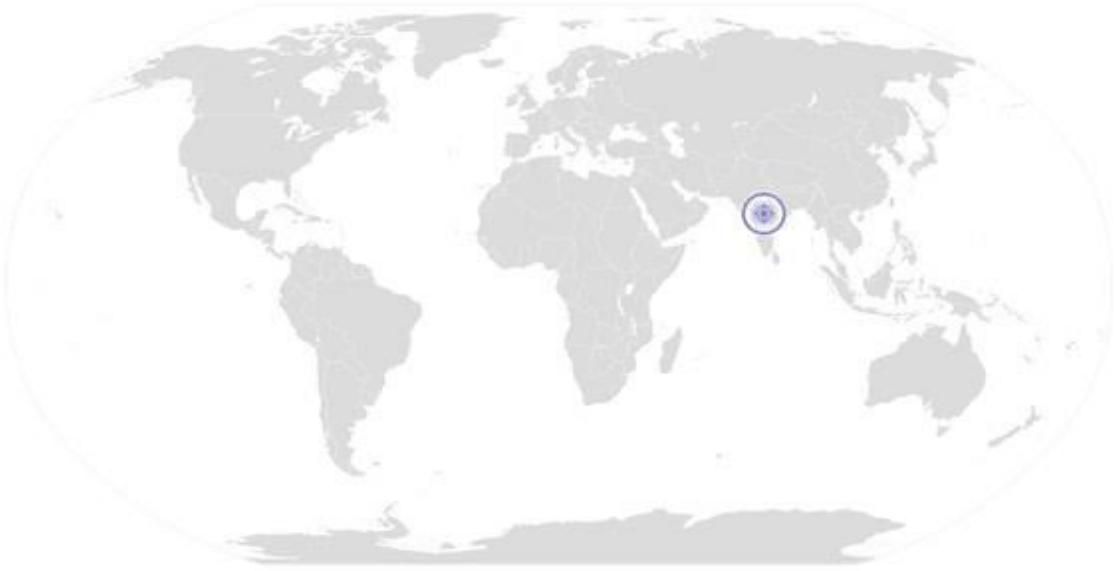


Overview

This unit is about carrying out quality checks

National Occupational Standard

Unit Code	RSC/N5003
Unit Title (Task)	**Carry out quality checks**
Description	This unit is about carrying out quality control activities
Scope	This unit/task covers the following: • Carrying out quality checks to identify problems • Take corrective actions • Reporting the results
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Inspection	To be competent, the user/individual on the job must be able to: PC1. Ensure that total range of checks are regularly and consistently performed PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required
Analysis	PC3. Identify non-conformities to quality assurance standards PC4. Identify potential causes of non-conformities to quality assurance standards PC5. Identify impact on final product due to non-conformance to company standards PC6. Evaluating the need for action to ensure that problems do not recur PC7. Suggest corrective action to address problem PC8. Review effectiveness of corrective action
Reporting	PC9. Interpret the results of the quality check correctly PC10. Take up results of the findings with QC in charge/appropriate authority. PC11. Take up the results of the findings within stipulated time PC12. Record of results of action taken PC13. Record adjustments not covered by established procedures for future reference PC14. Review effectiveness of action taken PC15. Follow reporting procedures where the cause of defect cannot be identified
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	KA1. Importance of learning proper procedures and techniques KA2. Implications of not following the organizational requirement for approval for undertaking the specific task KA3. Importance of completing the activities as per the schedule KA4. Implications of not following the defined procedures/work instructions KA5. Importance of team work KA6. Health, Safety and Environment guidelines, legislation and regulations as applicable KA7. Actions to be taken in case of non-conformity to behavioral standards of the organization KA8. Impact of poor practices on the individual's and organization's performance KA9. Importance of optimal utilization of resources KA10. Importance of providing feedback for improvement KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices

	KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization KA13. Importance of documentation/reporting as per guidelines and procedures KA14. Knowledge of do's and don'ts (company's HR instructions) KA15. Importance of attending trouble shooting KA16. Importance of subject learning/ training KA17. Importance of Product and its application
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. The importance of quality control procedures KB2. Relevance and importance of activities and how they contribute to the achievement of the quality objectives, KB3. Proper procedure for selecting the material/product and performing quality checks without affecting the material KB4. Availability of work instructions, as necessary, KB5. Characteristics of the product/material KB6. Use of suitable equipment KB7. Availability and use of monitoring and measuring devices, KB8. Requirements of records KB9. Importance of maintaining accurate up-to-date records KB10. The need to report within the stipulated time KB11. Implications of inaccurate measuring and testing instruments and equipment KB12. The cost of non-conformance to quality standards KB13. Implications (impact on internal/external customers) of defective products, materials or components
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills** The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams

	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in onus's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.

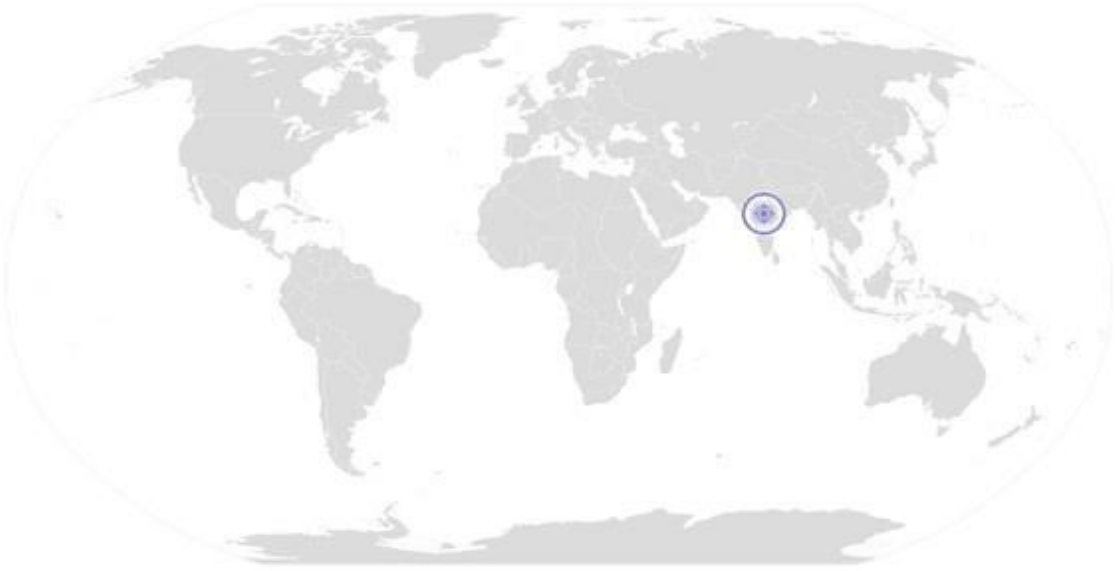
	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer. SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customer's requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB20. Interpret quality for sheet SB21. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB22. Identify the problems pertaining to the sharpening of tools based on visual inspection and work efficiency SB23. Diagnose common problems in the machine based on visual inspection, sound, etc SB24. Suggest improvements(if any) in process based on experience SB25. Minimize wastage of fabric while cutting plies of different sizes and carrying out wire cutting and slitting operations
	Critical Thinking
	SB26. Seek clarification on problems from others SB27. apply problem-solving approaches in different situations SB28. refer anomalies to the line manager

NOS Version Control

NOS Code	RSC/N5003		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre	Last reviewed on	20/12/2017
Occupation	Tyre Building	Next review date	20/12/2020

Back to QP

National Occupational Standard



Overview

This unit is about problem identification and escalation

National Occupational Standard

Unit Code	RSC/N5004
Unit Title (Task)	Carry out problem identification and escalation
Description	This unit is about problem identification and escalation

Scope	This unit/task covers the following:
	• Identify problems across:
	  ○ Raw materials
	  ○ Compounds
	  ○ Product
	  ○ Equipment
	  ○ Others
	• Identify solutions to problem and take corrective action
	• Escalation of unresolved identified problems

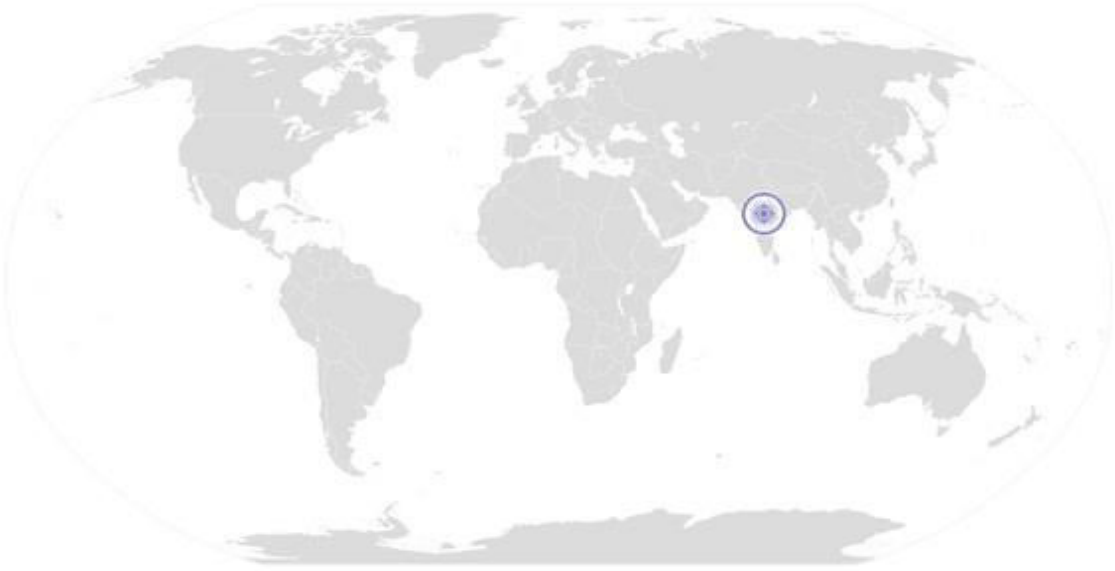
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Problem Identification	To be competent, the user/individual on the job must be able to: PC1. Identify defects/indicators of problems PC2. Identify any wrong practices that may lead to problems PC3. Identify practices that may impact the final product quality PC4. Identify if the problem has occurred before PC5. Identify other operations that might be impacted by the problem PC6. Ensure that no delays are caused as a result of failure to escalate problems
Necessary Action	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required) PC8. Consider possible reasons for identification of problems PC9. Consider applicable corrections and formulate corrective action PC10. Formulate action in a timely manner PC11. Communicate problem/remedial action to appropriate parties PC12. Take corrective action in a timely manner PC13. Take corrective action for problems identified according to the company procedures PC14. Report/document problem and corrective action in an appropriate manner PC15. Monitor corrective action PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved PC17. Ensure that corrective action selected is viable and practical PC18. Ensure that correct solution is identified to an identified problem PC19. Take corrective action for problems identified according to the company procedures PC20. Ensure that no delays are caused as a result of failure to take necessary action
Problem Escalation	PC21. Escalate problem as per laid down escalation matrix PC22. Escalate the problem within stipulated time PC23. Escalate the problem in an appropriate manner PC24. Ensure that no delays are caused as a result of failure to escalate problems

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	KA1. Importance of learning proper procedures and techniques KA2. Implications of not following the organizational requirement for approval for undertaking the specific task KA3. Importance of completing the activities as per the schedule KA4. Implications of not following the defined procedures/work instructions KA5. Importance of team work KA6. Health, Safety and Environment guidelines, legislation and regulations as applicable KA7. Actions to be taken in case of non-conformity to behavioral standards of the organization KA8. Impact of poor practices on the individual's and organization's performance KA9. Importance of optimal utilization of resources KA10. Importance of providing feedback for improvement KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization KA13. Importance of documentation/reporting as per guidelines and procedures KA14. Knowledge of do's and don'ts (company's HR instructions) KA15. Importance of attending trouble shooting KA16. Importance of subject learning/ training KA17. Importance of Product and its application
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Indicators of problems KB2. The working of the equipment and accessories(if applicable) KB3. The impact of operations on the user and equipment(if applicable) KB4. The impact of operations on the final product (if applicable) KB5. The effect of not rectifying the problems identified KB6. The reason for the occurrence of previous problems KB7. Measures and steps that have been taken to address the previous problems KB8. Possible solutions for various problems KB9. The correct method for carrying out corrective actions outlined for each problem KB10. The impact of not carrying out the corrective actions KB11. The documentation procedure for recording such problems, as per company norms KB12. The escalation matrix for reporting problems KB13. Escalation matrix for reporting unresolved problems KB14. The time frame within which in which each problem needs to be escalated KB15. Manner in which each problem needs to be escalated
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills** The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication

	SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication
	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing

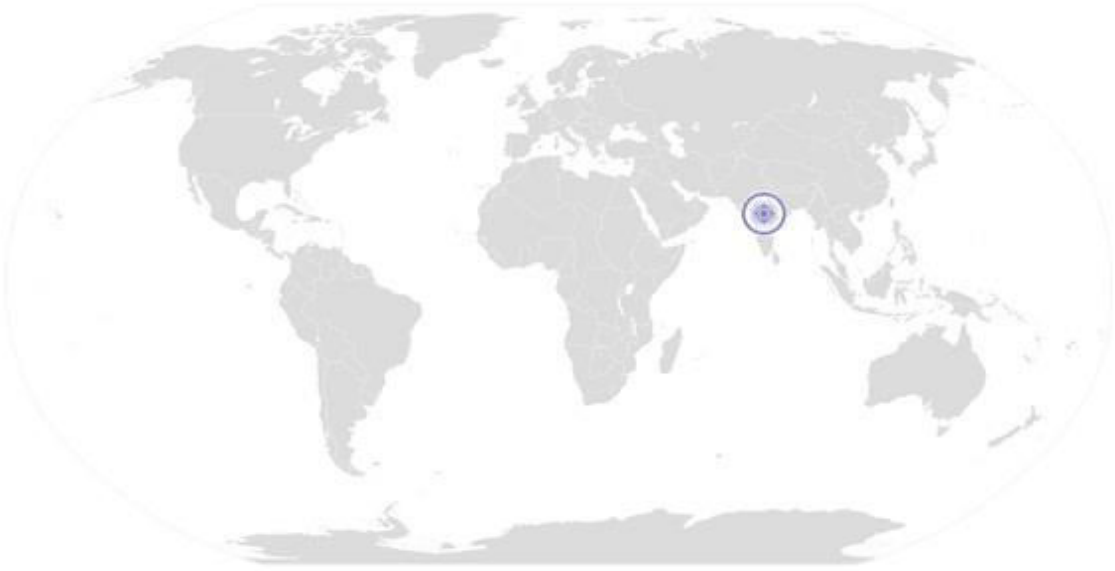
	existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.
	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer. SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customers requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB20. Interpret quality for sheet SB21. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB22. Identify the problems pertaining to the sharpening of tools based on visual inspection and work efficiency

	SB23. Diagnose common problems in the machine based on visual inspection, sound, etc SB24. Suggest improvements(if any) in process based on experience SB25. Minimize wastage of fabric while cutting plies of different sizes and carrying out wire cutting and slitting operations
	Critical Thinking
	SB26. Seek clarification on problems from others SB27. Apply problem-solving approaches in different situations SB28. Refer anomalies to the line manager



NOS Version Control

NOS Code	RSC/N5004		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre	Last reviewed on	20/12/2017
Occupation	Tyre Building	Next review date	20/12/2020



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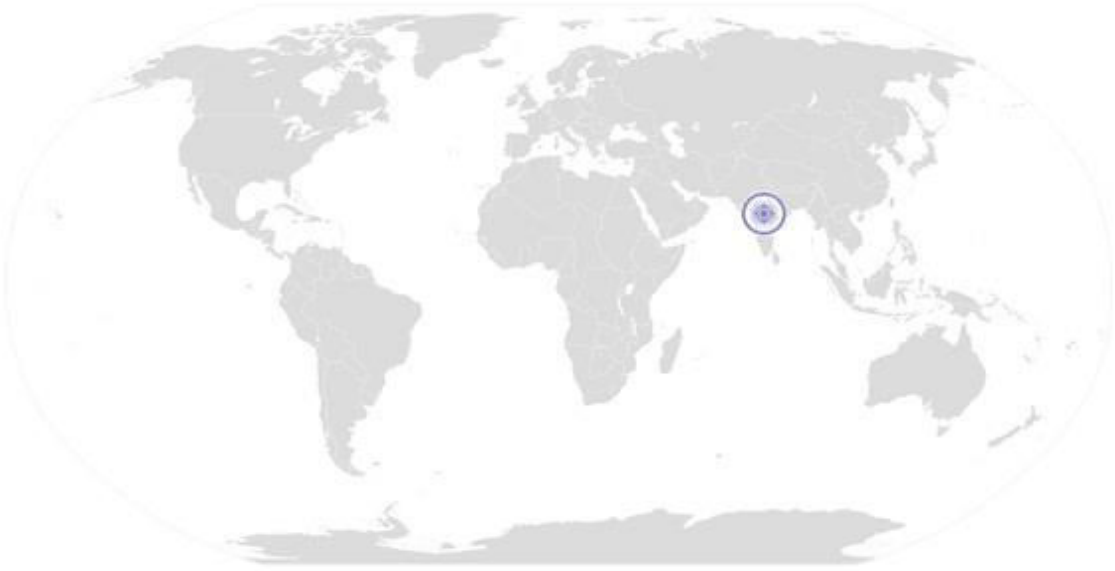
National Occupational Standard



Overview

This unit is about maintaining health and safety of self and others at workplace.

National Occupational Standard

Unit Code	RSC/N5007
Unit Title (Task)	**Carry out health and safety**
Description	This unit is about maintaining health and safety of self and others at workplace.
Scope	This unit/task covers the following: • Maintain a clean and efficient workplace • Render appropriate emergency procedures • Maintain standard safety procedures at the workplace • Participate in safety awareness campaigns • Understand potential sources of accidents • Use safety gears to avoid accidents
Performance Criteria (PC)	
Maintain a clean and efficient workplace	To be competent, the individual on the job must be able to: PC1. Undertake basic safety checks before operation of all machinery and equipment and report hazards to the appropriate supervisor PC2. Identify the work for which protective clothing or equipment is required and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy. PC3. Read and understand the hazards of use and contamination mentioned on the labels of chemicals, utilities etc PC4. Assess the risk prior to performing manual handling jobs and work is carried out according to currently recommended safe practices. PC5. Use equipment and materials safely and correctly and return the same to designated storage when not in use PC6. Dispose of waste safely and correctly in a designated area PC7. Recognize the risk to bystanders and take action to reduce risk associated with jobs in the workplace PC8. Perform work in a manner which minimizes environmental damage PC9. Monitor closely all procedures and work instructions for controlling risk PC10. Report any accidents, incidents or problems without delay to an appropriate person and take immediate necessary action to reduce further danger.
Render appropriate emergency procedures	PC11. Follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency. PC12. Follow emergency procedures as per company standards and workplace requirements. PC13. Use Emergency equipment in accordance with manufacturers' specifications and workplace requirements. PC14. Provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques. PC15. Recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate

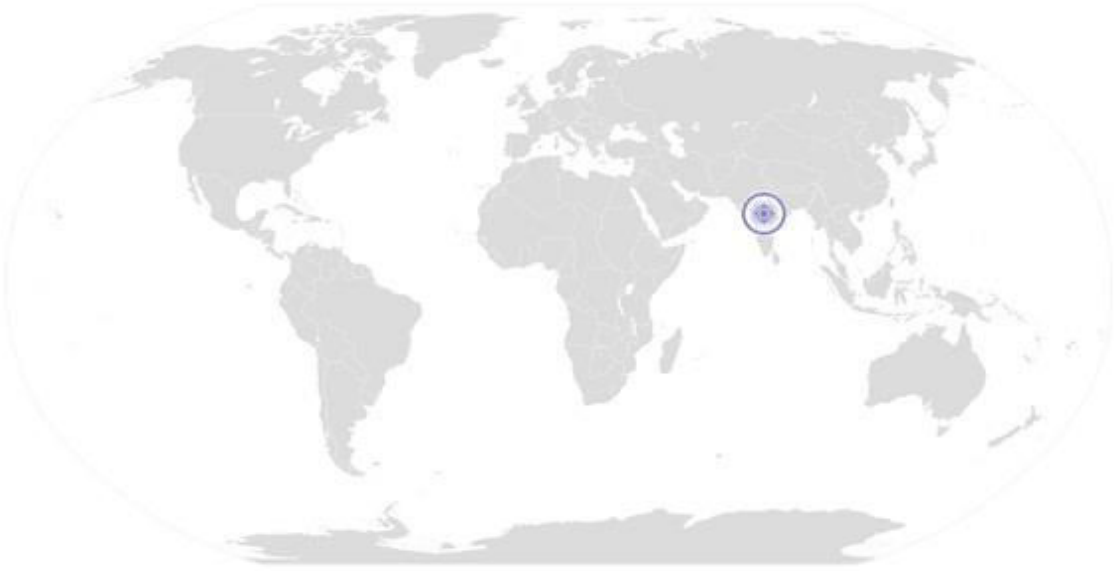
	PC16. Dispose of medical waste in accordance with workplace requirements PC17. Report details of first aid administered in accordance with work place procedures.
Maintain standard safety procedures at the workplace	PC18. Comply with general safety procedures PC19. Follow standard safety procedures while handling equipment, hazardous material or tool PC20. Check parts of the workplace and take preventive actions like spraying and other steps to protect from leakages, water logging, pests, fire, pollution, etc. PC21. Ensure no accidents and damages at the workplace, reporting of any breach of company safety procedure PC22. Keep the workplace organized, swept, clean and hazard free
Participate in safety awareness campaigns	PC23. Attend fire drills and other safety related workshops organized at the workplace PC24. Create awareness about first aid, evacuation and emergency procedures PC25. Ensuring all safety procedures are followed without neglecting any event
Understand potential sources of accidents	PC26. Avoid accidents while using hazardous chemicals, machines, sharp tools and equipment
Use safety gears to avoid accidents	PC27. Use safety materials such as protective gear, goggles, caps, shoes, etc. (as applicable with workplace) PC28. Handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, ladders
Knowledge and Understanding (K)	
A. Organizational context	The individual on the job needs to know and understand: KA1. Policies on incentives, delivery standards, and personnel management KA2. Occupational safety and health policy followed KA3. Emergency evacuation procedure KA4. Medical policy KA5. Company laws and acts
B. Technical knowledge	KB1. The risks to health and safety and the measures to be taken to control those risks in the area of work KB2. Workplace procedures and requirements for the handling of workplace injuries/illnesses. KB3. Basic emergency first aid procedure KB4. Local emergency services KB5. Reporting on accidents, incidents and problems to appropriate authorities. KB6. How to use machines as per standard operating procedure KB7. How to maintain work area safe and secure KB8. Use of hazardous materials, tools and equipments KB9. Emergency evacuation and first aid procedures to be followed KB10. Personal hygiene and fitness requirements KB11. General duties under the relevant health and safety legislation

	KB12. What personal protective equipment and clothing should be worn and how it is cared for KB13. The correct and safe way to use materials and equipment required for work KB14. The importance of good housekeeping in the workplace KB15. Safe disposal methods for waste KB16. Methods for minimizing environmental damage during work
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The individual on the job needs to know and understand how to: SA1. Record data which are required for record keeping purpose SA2. Report problems to the appropriate person in a timely manner SA3. Write descriptions and details about incidents in reports
	Reading Skills
	SA4. Read instruction manuals for hand tools and equipment SA5. Read instructions on work orders and procedures
	Oral Communication
	SA6. Receive instructions and seek advice from superiors SA7. Communicate clearly and effectively with others
B. Professional Skills	**Decision Making**
	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance

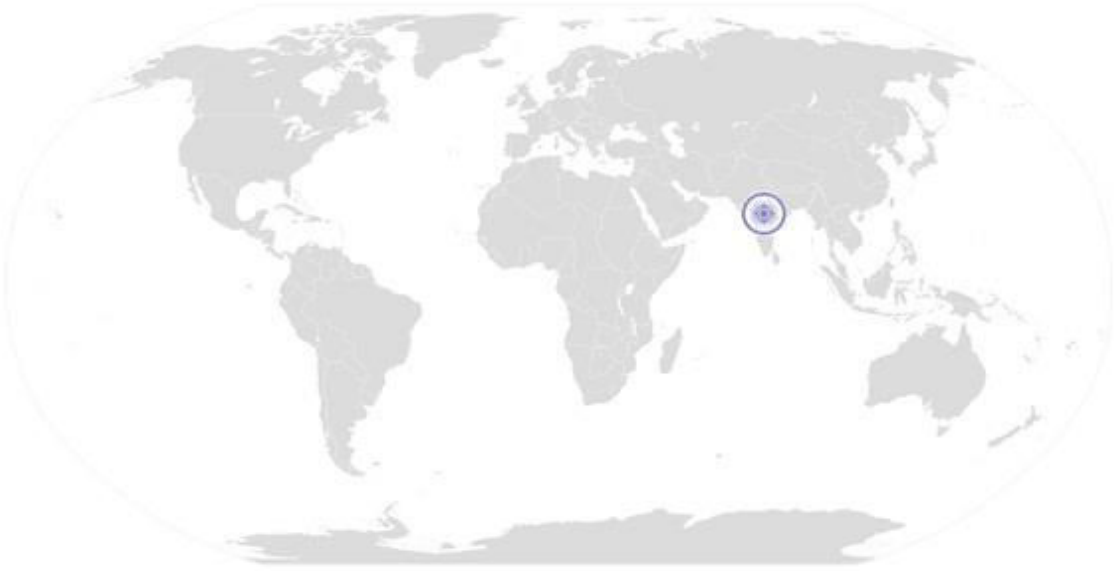
	required for completion.
	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer. SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customer's requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB20. Use first aid treatment in case of any injury/accident.
	Analytical Thinking
	SB21. Monitor and maintain the condition of tools and equipment SB22. Assess situation & identify appropriate control measures
	Critical Thinking
	SB23. Act, communicate and report in emergency situation

NOS Version Control

NOS Code	RSC/N5007		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Industry	Drafted on	02/12/2014
Industry Sub-sector	Rubber Manufacturing	Last reviewed on	20/12/2017
Occupation	Technology	Next review date	20/12/2020



National Occupational Standard



Overview

This unit is about performing steel cord cutting operation using the appropriate cutting tools and machine.

National Occupational Standard

Unit Code	RSC/N 1105
Unit Title (Task)	Perform steel cord cutting operation
Description	This unit is about performing steel cord cutting operation using the appropriate cutting tools and machine.
Scope	This unit/task covers the following: • Prepare the cutting tools and machine • Get the required material (coated wire fabric) to carry out cutting operations Operate the cutting machine and tool • Undertake steel cord cutting using appropriate tool. • Ensure housekeeping and safety in cutting area.
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Equipment readiness	To be competent, the user/individual on the job must be able to PC1. Ensure the availability of all required cutting tools. PC2. Ensure that the tools are clean and well sharpen. PC3. Set parameters for the machine as per the organizational SOP. PC4. Place the tools on a safe location.
Raw material appropriateness	PC5. Ensure that the material to be cut are approved/released by the laboratory. PC6. Check the availability of material with reference to the job schedule given by the planning department. PC7. Place the material properly for cutting for desired specification PC8. Ensure all the specifications required for the cord cutting during the shift is available
Operation	PC9. Monitor the machine properly during the cutting operation. PC10. Cut size of steel cord as per specified dimension PC11. Organize to keep/use the cut material appropriately. PC12. Remove remaining portions of the used material from the cutting area; send the wastage to the appropriate place for re-use or disposal PC13. Report any problem related to cutter machine to the Supervisor PC14. Send cut cords for next stage of operation as required by the specification
Health & Safety	PC15. Proper handling of machine and tools to avoid any injury/accident PC16. Adhere to all safety norms (such as wearing protective gloves and shoes, safety mask etc) PC17. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.
Knowledge and Understanding (K)	
B. Organizational Context (Knowledge of the company/ organization and its processes)	The user/individual on the job needs to know and understand: KA1. Cutting operation and its importance. KA2. Implications of poorly prepared tools and cutting machine KA3. The material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure. KA4. How to conduct quality and damage checks and their importance.

	KA5. Importance of identifying non-conforming products and their storage. KA6. Risk and impact of not following defined procedures/work instructions. KA7. The escalation matrix for reporting identified issues. KA8. Types of documentation in the organization and their importance. KA9. Records to be maintained and the implications of their non-maintenance. KA10. Importance of housekeeping and good shop floor practices KA11. Health, safety and environment guidelines, legislations and regulations, as applicable. KA12. Personal protection (which protective equipment to be used and how). KA13. Impact of poor practices on health, safety and environment. KA14. Potential hazards and actions to minimize them. KA15. The escalation matrix and procedures for reporting hazards. KA16. Importance of FIFO (First In First Out) KA17. Impact of various practices on cost, quality, productivity, delivery and safety. KA18. Handover/Takeover of the equipment/work area as per organizational Standard Operating Procedure (SOP).
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Cutting operation using cutting tools and machine. KB2. Cleanliness and safety requirements for commencing cutting operation. KB3. Effects of improper size cutting on the properties of final product. KB4. Knowledge of first aid treatment to respond to injuries. KB5. Knowledge of cutting appropriate piece sizes with respect to appropriate tools and machinery. KB6. Appropriate method for keeping the cut steel cord. KB7. Methods for removing remaining portions of non usable cut pieces from the cutting area. KB8. Process and importance of dimensional and quality checks. KB9. Batch marking techniques. KB10. Implications of incorrect batch marking. KB11. Implications of inappropriate waste disposal. KB12. Types of defects leading to rejections and their indicators, reasons and possible solutions. KB13. Units of measurement. KB14. Coding systems for identification and traceability. KB15. Usage of magnetic clamping device KB16. Knowledge of the storage life of product KB17. The usage of placing different types of tags for not using defective tools
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Write simple letters, email etc SA3. Fill up appropriate forms and activity logs in required format of the company SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills

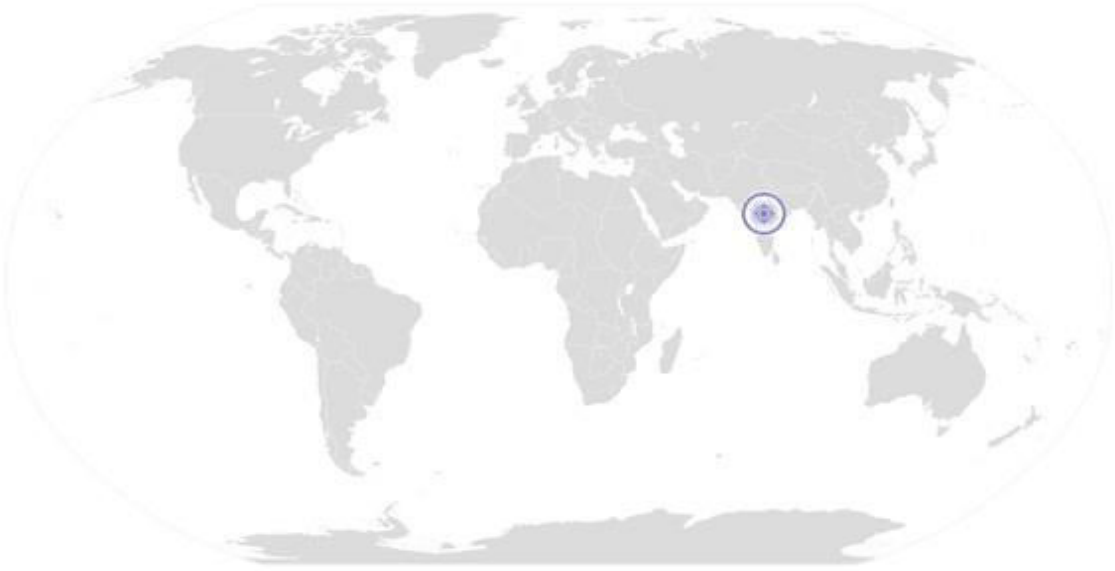
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication
	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams **Integrity** SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual

A. Professional Skills	**Decision Making**
	The individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history)on similar issues SB2. Work out changes in case a new improved machine / equipment is added in the process or any new material / chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses

	Plan and Organize
	SB10. Plan and organize the factors of production to execute the business plan SB11. Fix up tasks and allotment of the same SB12. Assign tasks to suitable persons SB13. Motivate them for better output and time bound completion of tasks
	Customer Centricity
	SB14. Correspond effectively with clients relating to product feedback and for communicating/collecting any other information.
	Problem Solving
	SB15. Solve problems related to equipment and supply of inputs SB16. Solve problems among colleagues SB17. Diagnose problems and resolve at initial stage itself
	Analytical Thinking
	SB18. Identify the problems pertaining to the sharpening of tools based on visual inspection and work efficiency SB19. Diagnose common problems in the machine based on visual inspection, sound etc SB20. Suggest improvements(if any) in process based on experience SB21. Optimal use of cutter machine ensuring minimal wastage
	Critical Thinking
	SB22. Take appropriate action/seek expert opinion to overcome critical situations

NOS Version Control

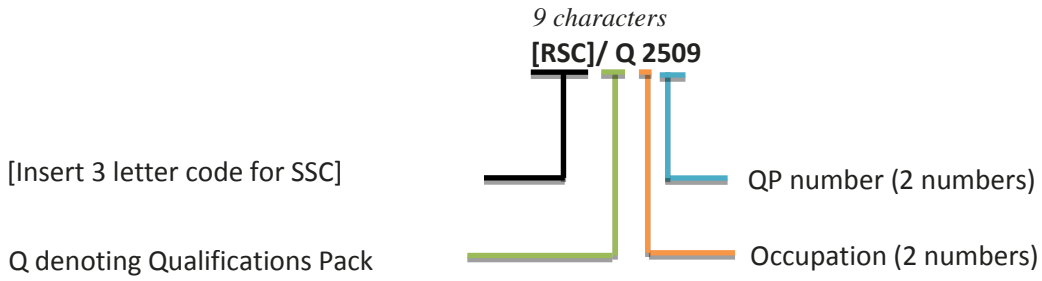
NOS Code	RSC/N1105		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre and Non Tyre	Last reviewed on	20/12/2017
Occupation	Tyre Building	Next review date	20/12/2020



Annexure

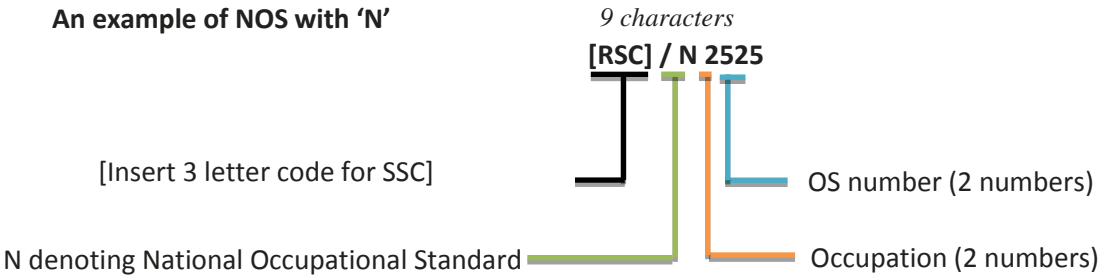
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



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

Sub-sector	Range of Occupation numbers
Latex	**02-34**
Non-tyre	**12-12**
Rubber Manufacturing	**28-28**
Tyre	**02-36**
Tyre & Non -Tyre	**01-37**

Sequence	Description	Example
Three letters	Industry name	[RSC]
Slash	/	/
Next letter	Whether **Q**P or NOS	N
Next two numbers	Occupation code	25
Next two numbers	OS number	25

Criteria For Assessment Of Trainees

Job Role: Tyre Component Stock Preparation Operator
Qualification Pack Code: RSC/Q2509
Sector Skill Council: Rubber Skill Development 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 and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Compulsory NOS **Total Marks: 800**				**Marks Allocation**	
Assessment outcomes	**Assessment Criteria for outcomes**	**Total Marks**	**Out Of**	**Theory**	**Skills Practical**
RSC/N2525 Prepare material, tools and machine for stock preparation	PC1. Ensure the availability of all required tools for stock preparation.	100	6	4	2
	PC2. Ensure that the tools are clean and well sharpen.		2	0	2
	PC3. Check that the slitting machine and its accessories are operational		10	6	4
	PC4. Set parameters for the machine as per the organizational SOP.		2	0	2
	PC5. Place the tools on a safe location.		1	0	1
	PC6. Check the sharpness of the blade for the cutting purpose.		1	0	1
	PC7. Ensure that the knife carriage and the cutting blade are in perfect working condition.		6	4	2
	PC8. Clean the table on which ply cutting is carried out		2	0	2
	PC9. Ensure that the let off and wind up units are operational		2	2	0
	PC10. Ensure that calendared and coated fabric to be cut and slitted is approved by the laboratory.		4	4	0
	PC11. Check the availability of fabric rolls with reference to the job schedule given by the planning department.		6	6	0
	PC12. Load the calendered fabric required for ply cutting on		11	6	5

	the ply cutter let off stand				
	PC13. Unwind the liner , pull the calendered sheet manually on to the bias cutter table		5	2	3
	PC14. Ensure empty liners are available for winding up the cut plies		9	6	3
	PC15. In case of band building ensure that the band building machine is operational and ready for accepting cut plies		9	6	3
	PC16. Place the coated fabric properly for cutting for desired specification		2	2	0
	PC17. Place the calendered fabric rolls in the order of slitting preference		2	2	0
	PC18. Ensure the use of certified/tested cutting hand tools and machine and check their functioning.		10	6	4
	PC19. Check if the Chain hoist is certified for lifting the roll weight and is safe enough for operation		3	0	3
	PC20. Ensure safety ropes for emergency stops are operational		3	0	3
	PC21. Adhere to all safety norms (such as wearing protective gloves, masks and shoes).		2	2	0
	PC22. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		2	2	0
	Total		**100**	**60**	**40**
RSC/N2526 Perform stock preparation operation	PC1. Ensure, through visual inspections, that the calendered fabric and coated wire fabric is as per schedule	100	2	2	0
	PC2. Ensure all the required specifications for different plies with different lengths and angles are available		2	2	0
	PC3. Ensure that all the specifications required for the wire cutting and slitting during the shift is available		2	2	0
	PC4. Ensure wind up liners for cut plies are available		2	2	0
	PC5. Check if the rolls has been loaded and fabric centered to get the efficient productivity and cutting		2	2	0
	PC6. Ensure the setting of ply cutting angle and the length are as per specifications		4	1	3
	PC7. Use only calibrated measuring tape / angle protector		5	2	3
	PC8. Adjust the angle of the machine for bias cutting to cut the sheet in the appropriate dimension as specified		5	2	3
	PC9. Operate the bias cutting machine and the hand tools		5	2	3
	PC10. Cut plies as per the required specification		6	3	3
	PC11. Check the angle and the length of initial few pieces to confirm conformity to specification		5	2	3
	PC12. Verify angle setting by checking the angle on the cut plies using protractor		3	0	3
	PC13. Set the length and correctly splice over the edges (width to length transformation) –check for correctness		5	2	3
	PC14. Verify the lengths by checking lengths against specification-rectify if not correct		3	0	3
	PC15. Monitor the machine properly and look for wavy/haggard cuts .Also look for knife carriage damaging the fabric		3	0	3
	PC16. Adjust the angle of the wire cutter to cut the sheet in the appropriate dimension as specified		5	3	2

	PC17. Ensure magnetic clamping device is operational to hold for auto cutting and release the fabric for travel until next cut		2	0	2
	PC18. Monitor the machine properly during the cutting operation.		2	0	2
	PC19. .Cut size of coated wire fabric sheet is as per specified dimension		5	3	2
	PC20. Slit the rubberized fabric longitudinally along the (warp) cord direction.		6	4	2
	PC21. Set the width of the slitter blades as per specification requirement		5	3	2
	PC22. Monitor the machine properly during the slitting operation		5	3	2
	PC23. Individual strips of the slitted rubberized fabric are wound on reels/Bobbins/card board shells, as directed by technical or thru SOP		4	2	2
	PC24. In case a finer strips are required, it is sent to another machine capable of further slitting to narrow widths as per the requirement		4	2	2
	PC25. Handle the sheet and ply using hand gloves and other safety equipment.		2	1	1
	PC26. Proper handling of machine and tools to avoid any injury/accident		2	1	1
	PC27. Adhere to all safety norms (such as wearing protective gloves and shoes, etc)		2	2	0
	PC28. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		2	2	0
	Total		**100**	**50**	**50**
RSC/N2527 Perform post-stock preparation activities	PC1. Clean tools and keep the tools at designated place after the completion of cutting operation.	100	3	0	3
	PC2. Ensure no left over of the sheet on the table after the completion of ply cutting		4	0	4
	PC3. Wrap the spliced cut plies in small liners		5	1	4
	PC4. (same as PC8)In case of simultaneous band building , send the cut plies through take away conveyors for the band builder to pick and use		5	2	3
	PC5. Report to the supervisor if the angle or length settings keep varying from machine set up		4	4	0
	PC6. Ensure each ply rolls /bands are clearly identified /tagged		6	3	3
	PC7. Send plies to band building or tyre building as required by specification		3	3	0
	PC8. Wrap the cut wires on liners		6	3	3
	PC9. Organize to keep the cut wire plies /bands appropriately.		3	3	0
	PC10. Remove remaining portions of the coated wire fabric from the cutting area; send the wastage to the appropriate place for re-use or disposal		3	3	0
	PC11. Send cut wires to band building or tyre building as required by the specification		5	0	5
	PC12. Organize to keep the slitted fabric appropriately.		7	3	4
	PC13. Remove remaining portions of the coated fabric from		5	2	3

	the stock preparation area; send the wastage to the appropriate place for re-use or disposal				
	PC14. Place all the empty bobbins, shells , square bars, poly ethylene at designated place once slitting schedule is met		5	2	3
	PC15. Send slitted rolls to tyre building/store as required by the production schedule		5	2	3
	PC16. Report any problem related to tools and machine to the Supervisor		2	2	0
	PC17. Dispose of waste material safely, as per organizational SOP.		9	5	4
	PC18. Ensure identification and traceability by batch marking/coding for the right product as per the instructions laid down by the company (in terms of code, ply number and date stamp).		8	4	4
	PC19. Send samples in specified form for testing.		6	3	3
	PC20. Handle the material using hand gloves and other safety equipment.		2	1	1
	PC21. Adhere to all safety norms (such as wearing protective gloves, shoes, safety goggles etc).		2	2	0
	PC22. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		2	2	0
	Total		**100**	**50**	**50**
RSC/N5001 Carry out housekeeping in rubber product manufacturing	PC1. Inspect the area while taking into account various surfaces	100	3	3	0
	PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain		3	3	0
	PC3. Ensure that the cleaning equipment is in proper working condition		3	3	0
	PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person		3	3	0
	PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces		3	3	0
	PC6. Inform the affected people about the cleaning activity		2	2	0
	PC7. Display the appropriate signage for the work being conducted		3	3	0
	PC8. Ensure that there is adequate ventilation for the work being carried out		3	3	0
	PC9. Wear the personal protective equipment required for the cleaning method and materials being used		3	3	0
	PC10. Use the correct cleaning method for the work area, type of soiling and surface		3	3	0
	PC11. Carry out cleaning activity without disturbing others		3	3	0
	PC12. Deal with accidental damage, if any, caused while carrying out the work		3	3	0
	PC13. Report to the appropriate person any difficulties in carrying out your work		3	3	0
	PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill		3	3	0
	PC15. Ensure that there is no oily substance on the floor to avoid slippage		9	3	6

	PC16. Ensure that no scrap material is lying around		9	3	6
	PC17. Maintain and store housekeeping equipment and supplies		3	3	0
	PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process		3	3	0
	PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements		8	2	6
	PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored		3	3	0
	PC21. Dispose the waste garnered from the activity in an appropriate manner		9	3	6
	PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly		9	3	6
	PC23. Maintain schedules and records for housekeeping duty		3	3	0
	PC24. Replenish any necessary supplies or consumables		3	3	0
	Total		**100**	**70**	**30**
RSC/N5002 Carry Out Reporting And Documentation	PC1. Report data/problems/incidents as applicable in a timely manner	100	12	8	4
	PC2. Report to the appropriate authority as laid down by the company		12	8	4
	PC3. Follow reporting procedures as prescribed by the company		12	8	4
	PC4. Identify documentation to be completed relating to one's role		10	6	4
	PC5. Record details accurately an appropriate format		16	6	10
	PC6. Complete all documentation within stipulated time according to company procedure		14	4	10
	PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly		6	4	2
	PC8. Make sure documents are available to all appropriate authorities to inspect		6	4	2
	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures		6	6	0
	PC10. Inform the appropriate authority of requests for information received		6	6	0
	Total		**100**	**60**	**40**
RSC/N5003 Carry Out Quality Checks	PC1. Ensure that total range of checks are regularly and consistently performed	100	24	10	14
	PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required		24	10	14
	PC3. Identify non-conformities to quality assurance standards		6	4	2
	PC4. Identify potential causes of non-conformities to quality assurance standards		5	3	2
	PC5. Identify impact on final product due to non-conformance to company standards		5	3	2
	PC6. Evaluating the need for action to ensure that problems do not recur		6	4	2
	PC7. Suggest corrective action to address problem		5	3	2

	PC8. Review effectiveness of corrective action		5	3	2
	PC9. Interpret the results of the quality check correctly		4	4	0
	PC10. Take up results of the findings with QC in charge/appropriate authority.		3	3	0
	PC11. Take up the results of the findings within stipulated time		3	3	0
	PC12. Record of results of action taken		3	3	0
	PC13. Record adjustments not covered by established procedures for future reference		3	3	0
	PC14. Review effectiveness of action taken		2	2	0
	PC15. Follow reporting procedures where the cause of defect cannot be identified		2	2	0
	Total		**100**	**60**	**40**
RSC/N5004 Carry Out Problem Identification And Escalation	PC1. Identify defects/indicators of problems	100	7	4	3
	PC2. Identify any wrong practices that may lead to problems		6	3	3
	PC3. Identify practices that may impact the final product quality		6	3	3
	PC4. Identify if the problem has occurred before		5	3	2
	PC5. Identify other operations that might be impacted by the problem		6	4	2
	PC6. Ensure that no delays are caused as a result of failure to escalate problems		5	3	2
	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)		8	5	3
	PC8. Consider possible reasons for identification of problems		8	5	3
	PC9. Consider applicable corrections and formulate corrective action		3	3	0
	PC10. Formulate action in a timely manner		3	3	0
	PC11. Communicate problem/remedial action to appropriate parties		7	5	2
	PC12. Take corrective action in a timely manner		2	2	0
	PC13. Take corrective action for problems identified according to the company procedures		2	2	0
	PC14. Report/document problem and corrective action in an appropriate manner		8	5	3
	PC15. Monitor corrective action		2	2	0
	PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved		2	2	0
	PC17. Ensure that corrective action selected is viable and practical		2	2	0
	PC18. Ensure that correct solution is identified to an identified problem		2	2	0
	PC19. Take corrective action for problems identified according to the company procedures		1	1	0
	PC20. Ensure that no delays are caused as a result of failure to take necessary action		1	1	0
	PC21. Escalate problem as per laid down escalation matrix		4	3	1
	PC22. Escalate the problem within stipulated time		4	3	1
	PC23. Escalate the problem in an appropriate manner		3	2	1

	PC24. Ensure that no delays are caused as a result of failure to escalate problems		3	2	1
	Total		**100**	**70**	**30**
RSC/N5007 Carry out Health and Safety	PC1. Undertake basic safety checks before operation of all machinery and equipment and report hazards to the appropriate supervisor	100	6	4	2
	PC2. Work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.		6	4	2
	PC3. Read and understand the hazards of use and contamination mentioned on the labels of chemicals, utilities etc		0	0	0
	PC4. Prior to performing manual handling jobs, risk is assessed and work is carried out according to currently recommended safe practices.		6	4	2
	PC5. Use equipment and materials safely and correctly and return the same to designated storage when not in use		3	2	1
	PC6.Dispose off waste safely and correctly in a designated area		6	4	2
	PC7. Risks to bystanders are recognized and action taken to reduce risk associated with jobs in the workplace		0	0	0
	PC8. Perform work in a manner which minimizes environmental damage		0	0	0
	PC9. All procedures and work instructions for controlling risk are followed closely.		0	0	0
	PC10. Report any accidents, incidents or problems without delay to an appropriate person and take immediate necessary action to reduce further danger.		0	0	0
	PC11.Follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.		6	4	2
	PC12.Follow emergency procedures as per company standards and workplace requirements.		8	5	3
	PC13.Use Emergency equipment in accordance with manufacturers' specifications and workplace requirements.		8	5	3
	PC14. Provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques.		0	0	0
	PC15. Recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate		0	0	0
	PC16. Dispose off medical waste in accordance with workplace requirements		0	0	0
	PC17.Report details of first aid administered in accordance with work place procedures.		7	4	3
	PC18. Comply with general safety procedures		8	4	4
	PC 19. Follow standard safety procedures while handling equipment, hazardous material or tool		0	0	0
	PC20. Check parts of the workplace and take preventive actions like spraying and other steps to protect from leakages, water logging, pests, fire, pollution, etc.		8	5	3
	PC21. Ensure no accidents and damages at the workplace, reporting of any breach of company safety procedure		0	0	0
	PC22. Keep the workplace organized, swept, clean and hazard free		8	5	3

	PC23. Attend fire drills and other safety related workshops organized at the workplace		4	2	2
	PC24. Create Awareness about first aid, evacuation and emergency procedures		4	2	2
	PC26. Avoid accidents while using hazardous chemicals, machines, sharp tools and equipment		4	2	2
	PC27.Use safety materials such as protective gear, goggles, caps, shoes, etc. (as applicable with workplace)		4	2	2
	PC28. Handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, ladders		4	2	2
	Total		**100**	**60**	**40**

OPTIONS **Optional 1.1 : Perform steel cord cutting operation** **Total Marks : 100**				**Marks Allocation**	
Assessment outcomes	**Assessment Criteria for outcomes**	**Total Marks**	**Out Of**	**Theory**	**Skills Practical**
RSC/N1105 Perform steel cord cutting operation	PC1. Ensure the availability of all required cutting tools.	100	7	4	3
	PC2. Ensure that the tools are clean and well sharpen.		7	4	3
	PC3. Set parameters for the machine as per the organizational SOP.		7	5	2
	PC4. Place the tools on a safe location.		6	4	2
	PC5. Ensure that the material to be cut are approved/released by the laboratory.		6	4	2
	PC6. Check the availability of material with reference to the job schedule given by the planning department.		4	2	2
	PC7. Place the material properly for cutting for desired specification		5	2	3
	PC8. Ensure all the specifications required for the cord cutting during the shift is available		7	4	3
	PC9. Monitor the machine properly during the cutting operation.		7	4	3
	PC10. Cut size of steel cord as per specified dimension		8	4	4
	PC11. Organize to keep/use the cut material appropriately.		7	4	3
	PC12. Remove remaining portions of the used material from the cutting area; send the wastage to the appropriate place for re-use or disposal		8	4	4
	PC13. Report any problem related to cutter machine to the Supervisor		4	4	0
	PC14. Send cut cords for next stage of operation as required by the specification		6	3	3
	PC15. Proper handling of machine and tools to avoid any injury/accident		5	3	2
	PC16. Adhere to all safety norms (such as wearing protective gloves and shoes, safety mask etc)		4	3	1
	PC17. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		2	2	0
	Total		**100**	**60**	**40**