

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR RUBBER INDUSTRY

What are Occupational Standards(OS)?

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

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Introduction

Qualifications Pack- Rubber Calendering Operator

SECTOR: RUBBER INDUSTRY

SUB-SECTOR: Tyre, Non Tyre

OCCUPATION: Calendering

REFERENCE ID: RSC/Q2701

ALIGNED TO: NCO-2015/8141.0101

Brief Job Description: The Rubber Calendering Operator is responsible for feeding the correct quantity of compound to the Calender rolls and performing gum sheeting and cord fabric coating operation.

Personal Attributes: This job requires the individual to have an eye for detail. He must have a positive attitude and be open to learning. The individual must be result oriented. He should be able to work in factory environment. He should be very careful and attentive while performing his job and good at coordinating with other team members.

Job Details	Qualifications Pack Code	RSC/Q2701		
	Job Role	Rubber Calendering Operator		
	Credits(NSQF)	TBD	Version number	2.0
	Sector	Rubber Industry	Drafted on	04/06/2013
	Sub-sector	Tyre	Last reviewed on	23/08/2017
	Occupation	Calendering	Next review date	23/08/2021
	NSQC Clearance on			

Job Role	Rubber Calendering operator
Role Description	The rubber calendering operator is responsible for feeding the correct quantity of compound to the Calender rolls and performing calendering and textile coating operation.
NSQF level	4
Minimum Educational Qualifications*	Class VIII th Pass
Maximum Educational Qualifications*	
Prerequisite License or Training	NA
Minimum Job Entry Age	18 years
Experience	Worked as a semi-skilled helper for minimum 12 months in the same or similar process
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> RSC/N2704 - Perform pre rubber calendering activities RSC/N2705 - Perform calendering operation using 3 roll/ 4 roll calender RSC/N2706 - Perform post rubber calendering activities RSC/N5001 - Carry out housekeeping in rubber product manufacturing RSC/N5002 - Carry out reporting and documentation RSC/N5003 - Carry out quality checks RSC/N5004 - Carry out problem identification and escalation RSC/N5007 - Carry out health and safety
Performance Criteria	As described in the relevant OS units

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
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 equipment for calendering operation.

Perform Pre Rubber Calendering Activities

National Occupational Standard

Unit Code	RSC/N2704
Unit Title (Task)	Perform Pre Rubber Calendering Activities
Description	This unit is about preparing equipment for calendering operation
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> Ensuring equipment readiness, housekeeping and safety in the calendering area Ensuring raw material appropriateness in the calendering area Setting parameters on the Calender for Health and Safety
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Equipment readiness	<p>To be competent, the user/individual on the job must be able to</p> <p>PC1. Ensure emergency safety feature of machine is working</p> <p>PC2. Ensure that the bowls/Rolls of the Calender and the heating and cooling cans/rolls are clean</p> <p>PC3. Set parameters for the upstream and downstream equipment as per SOP</p> <p>PC4. Check functioning of calendering temperature control unit (steam/thermic fluid/cooling water flow circulation)</p> <p>PC5. Switch on the TCU for the system which heats up the rolls</p> <p>PC6. Check nip gaps and temperature are set as per requirement.</p> <p>PC7. Select the liner of appropriate width and length</p> <p>PC8. Ensure the liners are rerolled uniformly before starting the process</p> <p>PC9. Ensure there should not be any spillage of oil/grease on the bowls/rolls of the Calender and the surrounding area</p> <p>PC10. Check fabric tensioner/s are performing OK</p>
Raw material appropriateness	<p>PC11. Ensure that rubber compound to be fed is approved by laboratory</p> <p>PC12. Check the compound, cord fabric/steel cord codes are as per specification issued by plant technical SOP and if it matches with the schedule provided by planning. Specification /sop is the one to be considered as OK.</p>
Health & Safety	<p>PC13. Ensure that the guards are provided where manual feeding is done on to the Calender rolls.</p> <p>PC14. Ensure loose gloves are not worn while feeding rubber to the Calender roll</p> <p>PC15. Adhere to all safety norms (like wearing protective gloves, shoes etc)</p> <p>PC16. Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational standards</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Different types of calender units and their operation as well as control panel</p> <p>KA2. Different types of calendering operation</p> <p>KA3. Implications of poorly prepared equipment, power failure etc</p> <p>KA4. Importance of identifying non-conforming material and storage of the same</p>

Perform Pre Rubber Calendering Activities

<p>its processes)</p>	<p>KA5. Risk and impact of not following defined procedures/work instructions KA6. Escalation matrix for reporting identified problems KA7. Types of documentation in organization and importance of the same KA8. Records to be maintained and implications of non-maintenance of the same KA9. Importance of housekeeping & good shop floor practices (e.g. 3S & 5S and /or any plant housekeeping systems) KA10. Health, Safety and Environment guidelines, legislation and regulations as applicable KA11. Personal protection(which protective equipment to be used and how) KA12. Impact of poor practices on health, safety and environment KA13. Potential hazards and actions to minimize the same KA14. Escalation matrix and escalation procedure for reporting hazards KA15. Importance of FIFO KA16. Impact of various practices on cost, quality, productivity, delivery and safety KA17. Handover/ Takeover the equipment/ work area as per organisation’s SOP</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand: KB1. Knowledge of influence of parameters (e.g. time, temperature, pressure) on calendering operation KB2. Cleanliness and safety requirements for commencing a calendering batch operation KB3. Effects of continuous direct exposure/contact of the calendered sheet to the skin KB4. Type of defects/problems leading to rejections, indicators, reasons and possible solutions. KB5. Units of measurement KB6. Measurement using gauges and balance (for thickness, width and weight) KB7. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster KB8. Knowledge of appropriate batch size with respect to appropriate machinery KB9. Usage of different types of fire extinguishers</p>
<p>Skills (S)</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. 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</p> <p>Reading Skills</p>

Perform Pre Rubber Calendering Activities

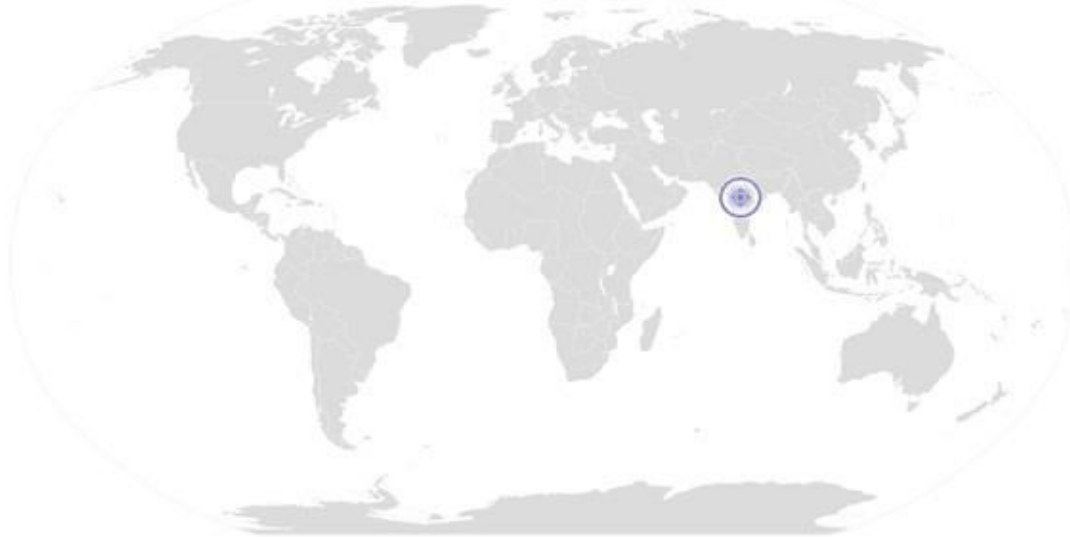
	<p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	<p>Oral Communication</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p>
	<p>Life Skills</p> <p>Integrity</p> <p>SA12. Practice honesty with respect to company property and time</p> <p>SA13. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA14. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust</p> <p>Motivation</p> <p>SA15. Take responsibility for completing one's own work assignment</p> <p>SA16. Take initiative to enhance/learn skills in one's area of work</p> <p>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.</p> <p>SA18. Is open to new ways of doing things</p> <p>SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p> <p>Reliability</p> <p>SA20. Avoid absenteeism</p> <p>SA21. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA22. Work in disciplined factory environment</p> <p>SA23. Be punctual</p>
B. Professional Skills	<p>Decision Making</p> <p>The individual needs to know and understand how to:</p> <p>SB1. Take a decision for any change/issue based on earlier successes(documented previous history)on similar issues</p> <p>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.</p> <p>SB3. Make changes in cycle time due to improved process.</p> <p>SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management</p> <p>SB5. Consult the peer group and superiors to arrive at a favourable decision.</p> <p>SB6. Use of standard available problem solving techniques for decision making</p>

Perform Pre Rubber Calendering Activities

	<p>SB7. Review and analyze the process steps to check on system non adherence and non conformity</p> <p>SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making</p> <p>SB9. Take a calculated risk with minimum losses</p>
	Plan and Organize
	<p>SB10. Plan calendering activity in co-ordination with pre and post processes</p> <p>SB11. Organize tools and equipments as per the requirement</p> <p>SB12. Maximize the output to achieve the set target in timely manner</p>
	Customer Centricity
	<p>SB13. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required)</p> <p>SB14. 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.</p> <p>SB15. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer.</p> <p>SB16. Communicate effectively to the superior/customer for any delay in supplies to the clients.</p> <p>SB17. Work towards fulfilling the customers requirement as per their demand.</p> <p>SB18. In case of any complaint, ensure its timely resolution if the problem is emanating at his level</p> <p>SB19. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer.</p> <p>SB20. Maintain good/cordial relation with customers.</p> <p>SB21. Work on the feedback received from customer regarding the product.</p>
	Problem Solving
	<p>SB22. Interpret quality for rubber compound</p> <p>SB23. Suggest improvements(if any) in process/product/materials based on results and experience</p>
	Analytical Thinking
	<p>SB24. Proper collection of raw material</p> <p>SB25. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience</p>
	Critical Thinking
	<p>SB26. Apply problem-solving approaches in different situations</p> <p>SB27. Identify repair and maintenance requirement of calender and get it ready in time</p>

NOS Version Control

NOS Code	RSC/N2704		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	04/06/2013
Industry Sub-sector	Tyre	Last reviewed on	23/08/2017
Occupation	Calendering	Next review date	23/08/2021



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National Occupational Standard



Overview

This unit is about performing Calendering operation using 3 roll/ 4 roll calender.

Unit Code	RSC/N2705
Unit Title (Task)	Perform Calendering operation using 3 roll/ 4 roll calender
Description	This unit is about performing Calendering operation using 3 roll/ 4 roll calender
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Raw material appropriateness & feeding the compound to the Calender and feeding the compound to the Calender • Performing Calendering operation • Cord fabric coating • Ensuring housekeeping and safety in the calendering 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: <ul style="list-style-type: none"> PC1. Handle the rubber compound to avoid contamination PC2. Ensure that batch size of rubber compound is as per company's SOP PC3. Ensure the compound lab OK status before starting of the process PC4. Ensure use of appropriate liner PC5. Ensure the liners are re rolled uniformly before starting of the process PC6. Ensure the t liner which is free of contamination
Calendering Operations	<ul style="list-style-type: none"> PC7. Select the correct compound PC8. Feed the correct quantity to the Calender rolls PC9. Ensure the film thickness as per specifications PC10. Inspect visually the rubber strip to make sure it is free from defects and meets required specifications for further processing. PC11. Organise compound at feed system (cracker mill/ warm up mill/ feed mill) through overhead conveyor to the nip of 1st & 2nd Rolls of the Calender. PC12. Pass the compound through 2nd nip of the rolls for compound sheet production PC13. Check circular samples from both edges (10 cm. from edge) for proper compound film thickness PC14. Produce product of correct width, thickness and texture PC15. Ensure the functioning of pricker rollers PC16. Ensure that the calendered sheet is free of contamination
Cord fabric Coating	<ul style="list-style-type: none"> PC17. Plan batch sequence in shifts based on raw material (Compound and cord fabric) availability/rejection to maximize output PC18. Select the correct compound PC19. Set the feed strip for correct continuous feed to the Calender nip. PC20. Inspect visually the rubber compound to make sure it is free from contamination. PC21. Inspect visually the fabric to make sure it is free from defects & dry PC22. Maintain the temperature of all rolls and the line speed as per SOP PC23. Ensure that the direction of fabric has been changed for both sided coating(In two pass three roll Calender) PC24. Produce sheet of correct width, thickness Ensure that the calendered sheet is free from contamination

	<p>PC25. Ensure that material wastage is within tolerance limits</p> <p>PC26. Ensure that no rework or rejection is generated.</p> <p>PC27. Match the quality of output to company's product requirements</p> <p>PC28. Meet production quantity targets set for the operation</p> <p>PC29. Follow work instructions as laid down by the company</p>
Housekeeping & Safety	<p>PC30. Maintain safe distance while machine is in operation</p> <p>PC31. Ensure housekeeping in Calendering area</p> <p>PC32. Ensure that the feed rolls are provided with a guard to protect hand/fingers going in between rolls</p> <p>PC33. Ensure the functioning of safety button / safety bar in all mills (Cracker/ Warming and feeding mill)</p> <p>PC34. Use the protective gloves to handle the hot rolls/compounds</p> <p>PC35. Adhere to all safety norms (like wearing protective gloves, mask, shoes, safety goggles etc)</p> <p>PC36. Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational SOP</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Different types of Calender units and their operation as well as control panel.</p> <p>KA2. Different types of calendering operation.</p> <p>KA3. Implications of poorly prepared equipment, power failure etc</p> <p>KA4. Material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure</p> <p>KA5. Quality and damage checks to be done and importance of the same</p> <p>KA6. Importance of identifying non-conforming products and storage of the same</p> <p>KA7. Risk and impact of not following defined procedures/work instructions</p> <p>KA8. Escalation matrix for reporting identified issues</p> <p>KA9. Types of documentation in organization and importance of the same</p> <p>KA10. Records to be maintained and implications of non-maintenance of the same</p> <p>KA11. Importance of housekeeping & good shop floor practices (e.g.3S/5S)</p> <p>KA12. Health, Safety and Environment guidelines, legislation and regulations as applicable</p> <p>KA13. Personal protection(Which protective equipment to be used and how)</p> <p>KA14. Impact of poor practices on health, safety and environment</p> <p>KA15. Potential hazards and actions to minimize the same</p> <p>KA16. Escalation matrix and escalation procedure for reporting hazards</p> <p>KA17. Importance of FIFO</p> <p>KA18. Impact of various practices on cost, quality, productivity, delivery and safety</p> <p>KA19. Handover/ Takeover the equipment/ work area as per company's SOP</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Calendering machine & its operation</p> <p>KB2. Influence of cambering, cross –axis, roll bending, roll finish on uniformity of gauge</p> <p>KB3. Importance of process parameters (temperature, pressure, gauge etc)</p> <p>KB4. Importance of maintaining differential speed of the top, middle and bottom</p>

Perform Calendering Operations using 3 roll/ 4 roll calender

	rolls KB5. Troubleshooting- Knowledge of abnormalities and what response to make in case of abnormalities in equipment performance KB6. The emergency stops procedures for the calendering machine. KB7. Measurement procedures using gauges and balance (for thickness, width and weight) KB8. The process and importance of quality check ,including visual inspection and dimensional checks KB9. Effects of continuous direct exposure/contact of the calendered sheet to the skin KB10. Effect of improper calendering on properties of product. KB11. The procedure for maintaining all the rolls at even speed KB12. Importance of changing the direction of the fabric KB13. The emergency stops procedures for the calendering machine. KB14. Cleanliness and safety requirements for commencing a calendering operation KB15. The detrimental effect of inhalation of fumes / particulate containing Carbon Black (CB), Silica & rubber chemicals etc. KB16. About the detrimental effects of continuous direct exposure of the calendered sheet to the skin, exposure of the eye to harmful fumes. KB17. Effect of improper calendering on properties of product. KB18. Implications of not adhering to sequence of activities and operations KB19. Implications of delays in production process KB20. Types of defects leading to rejections, indicators, reasons and possible solutions. KB21. Potential problems in the calendering operation KB22. Units of measurement KB23. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster KB24. Knowledge of appropriate batch size with respect to appropriate machinery KB25. When and where to use cleaner batches and their disposal KB26. Usage of different types of fire extinguishers KB27. Provide appropriate solutions to the problems encountered
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

	<p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	<p>Oral Communication</p>
	<p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p>
	<p>Life Skills</p>
	<p>Integrity</p> <p>SA12. Practice honesty with respect to company property and time</p> <p>SA13. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p> <p>Motivation</p> <p>SA15. Take responsibility for completing one’s own work assignment</p> <p>SA16. Take initiative to enhance/learn skills in ones’s area of work</p> <p>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.</p> <p>SA18. Is open to new ways of doing things</p> <p>SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p> <p>Reliability</p> <p>SA20. Avoid absenteeism</p> <p>SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA22. Work in disciplined factory environment</p> <p>SA23. Be punctual</p>
<p>B. Professional Skills</p>	<p>Decision Making</p> <p>The individual needs to know and understand how to:</p> <p>SB1. Take a decision for any change/issue based on earlier successes(documented previous history)on similar issues</p> <p>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.</p> <p>SB3. Make changes in cycle time due to improved process.</p> <p>SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management</p> <p>SB5. Consult the peer group and superiors to arrive at a favourable decision.</p> <p>SB6. Use of standard available problem solving techniques for decision making</p>

Perform Calendering Operations using 3 roll/ 4 roll calender

	<p>SB7. Review and analyze the process steps to check on system non adherence and non conformity</p> <p>SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making</p> <p>SB9. Take a calculated risk with minimum losses</p>
	Plan and Organize
	<p>SB10. Inspect the sheets during the process</p> <p>SB11. Produce the maximum output with minimal wastage</p> <p>SB12. Arrange for proper maintenance of calender</p> <p>SB13. Schedule production in case of re-work</p>
	Customer Centricity
	<p>SB14. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required)</p> <p>SB15. 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.</p> <p>SB16. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer.</p> <p>SB17. Communicate effectively to the superior/customer for any delay in supplies to the clients.</p> <p>SB18. Work towards fulfilling the customers requirement as per their demand.</p> <p>SB19. In case of any complaint, ensure its timely resolution if the problem is emanating at his level</p> <p>SB20. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer.</p> <p>SB21. Maintain good/cordial relation with customers.</p> <p>SB22. Work on the feedback received from customer regarding the product.</p>
	Problem Solving
	<p>SB23. Interpret quality of sheet and textile coating</p> <p>SB24. Suggest improvements(if any) in process/product/materials based on results and experience</p>
	Analytical Thinking
	<p>SB25. Proper collection of waste material</p> <p>SB26. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience</p> <p>SB27. Diagnose common problems in the machine based on visual inspection, sound, temperature etc</p>
	Critical Thinking

	<p>SB28. Identify any issues affecting the material, equipment or surroundings</p> <p>SB29. Escalate issues that cannot be solved as per the troubleshooting/company manual</p> <p>SB30. Seek clarification on problems from others</p> <p>SB31. Apply problem-solving approaches in different situations</p> <p>SB32. Handle emergency situations arising during the calendering process</p>
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NOS Version Control

NOS Code	RSC/N2705		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	04/06/2013
Industry Sub-sector	Tyre	Last reviewed on	23/08/2017
Occupation	Calendering	Next review date	23/08/2021



National Occupational Standard



Overview

This unit is about performing activities after the completion of calendering operation.

Perform Post Rubber Calendering Activities

Unit Code	RSC/N2706
Unit Title (Task)	Perform post rubber calendering activities
Description	This unit is about performing activities after the completion of Calendering using 3 roll/ 4 roll calender.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Operations • Material disposal • Batching-off of calendered sheets • Sampling operation • Ensuring housekeeping and safety in the calendering area
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Operations	PC1. Ensure that the correct liner is used and is clean and batched off on right size roll PC2. Ensure that the liners are ironed and rerolled before starting the process PC3. Roll the calendered sheet on the liner at the winding station PC4. Ensure that the wind up temperature of the calendered gum /coated fabric are as per SOP to avoid loss tack or stuck to libner problems PC5. Ensure the storage are free to load the processed fabric PC6. Pack the calendered roll properly and store it in the designated area PC7. Ensure the storage condition and FIFO while storage of the processed fabric PC8. Ensure the provision of proper identification system on the processed fabric rolls at storage PC9. Ensure the film thickness as per specifications PC10. Operate online marking(coated fabric identification) system for product identification PC11. Follow work instructions as laid down by the company PC12. Handover the equipment to the next operator in clean and good condition
Material disposal	PC13. Dispose waste material in safe manner as per organizational SOP
Batch Marking	PC14. Carry out batch marking for the right product as per instructions laid down by the company (in terms of weight, length, colour etc).
Sampling	PC15. Make the samples as per the sampling frequency as per organizational SOP PC16. Send the Calendered fabric full width sample to lab for testing with proper identification like Calender roll #, Size code and production date with time. PC17. Identify the location in the sample like Panel board side, middle side and rotary joint side for better understanding and ensure the dispersion of the material in the product while testing PC18. Send the remaining material to the designated storage area
Housekeeping & Safety	PC19. Ensure housekeeping in Calendering area PC20. Ensure that the feed rolls are provided with a guard to protect hand/finger going in between rolls PC21. Ensure that the direct exposure of the calendered sheet to the skin is minimized PC22. Adhere to all safety norms (like wearing protective gloves, mask, shoes, safety

Perform Post Rubber Calendering Activities

	<p>goggles etc)</p> <p>PC23. Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational</p>
Knowledge and Understanding (K)	
<p>A. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Implications of poorly prepared equipment, power failure etc</p> <p>KA2. Material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure</p> <p>KA3. Significance of batch marking</p> <p>KA4. Importance of identifying non-conforming product and storage of the same</p> <p>KA5. Risk and impact of not following defined procedures/work instructions</p> <p>KA6. Escalation matrix and procedure for reporting identified problems</p> <p>KA7. Types of documentation in organization and importance of the same</p> <p>KA8. Records to be maintained and implications of non-maintenance of the same</p> <p>KA9. Importance of housekeeping & good shop floor practices (e.g.3S/5S)</p> <p>KA10. Health, Safety and Environment guidelines, legislation and regulations as applicable</p> <p>KA11. Personal protection (Which protective equipment to be used and how)</p> <p>KA12. Potential hazards and actions to minimize the same</p> <p>KA13. Impact of poor practices on health, safety and environment</p> <p>KA14. Escalation matrix and procedure for reporting hazards</p> <p>KA15. Handover/Takeover the equipment/ work area as per organisational SOP</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Batch marking techniques</p> <p>KB2. Implications of incorrect batch marking</p> <p>KB3. Implications of inappropriate waste disposal</p> <p>KB4. Type of defects leading to rejections</p> <p>KB5. Units of measurement</p> <p>KB6. Coding systems for identification and traceability</p> <p>KB7. Knowledge of weighing scales</p> <p>KB8. Knowledge of proper wind up temperature .</p> <p>KB9. Knowledge of off spec width or length of rolls wound</p> <p>KB10. Knowledge of storage life of the compound, knowledge of ambient temperature and effect on compound</p> <p>KB11. Detrimental effects of inhalation of fumes / particulate containing Carbon Black (CB), Silica & rubber chemicals etc.</p> <p>KB12. Detrimental effects of continuous direct exposure of the calendered sheet to the skin, exposure of the eye to harmful fumes.</p> <p>KB13. How to identify surface defects like blooming</p> <p>KB14. Usage of different types of fire extinguishers</p>
Skills (S)	

Perform Post Rubber Calendering Activities

Core Skills/ Generic Skills	Oral Communication
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA2. Respond appropriately to any queries</p> <p>SA3. Communicate with supervisor</p> <p>SA4. Communicate with upstream and downstream teams</p>
B. Professional Skills	Life Skills
	<p>Integrity</p> <p>SA5. Practice honesty with respect to company property and time</p> <p>SA6. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA7. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p> <p>Motivation</p> <p>SA8. Take responsibility for completing one’s own work assignment</p> <p>SA9. Take initiative to enhance/learn skills in ones’s area of work</p> <p>SA10. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one’s learning.</p> <p>SA11. Is open to new ways of doing things</p> <p>SA12. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p> <p>Reliability</p> <p>SA13. Avoid absenteeism</p> <p>SA14. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA15. Work in disciplined factory environment</p> <p>SA16. Be punctual</p>
B. Professional Skills	Decision Making
	<p>The individual needs to know and understand how to:</p> <p>SB1. Take a decision for any change/issue based on earlier successes(documented previous history)on similar issues</p> <p>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.</p> <p>SB3. Make changes in cycle time due to improved process.</p> <p>SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management</p> <p>SB5. Consult the peer group and superiors to arrive at a favourable decision.</p> <p>SB6. Use of standard available problem solving techniques for decision making</p> <p>SB7. Review and analyze the process steps to check on system non adherence and</p>

Perform Post Rubber Calendering Activities

	<p>non conformity</p> <p>SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making</p> <p>SB9. Take a calculated risk with minimum losses</p>
	<p>Plan and Organize</p>
	<p>SB10. Wind off the calendered sheets properly</p> <p>SB11. Co-ordinate for next process effectively</p> <p>SB12. Batch marking in systematic way</p>
	<p>Customer Centricity</p>
	<p>SB13. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required)</p> <p>SB14. 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.</p> <p>SB15. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer.</p> <p>SB16. Communicate effectively to the superior/customer for any delay in supplies to the clients.</p> <p>SB17. Work towards fulfilling the customers requirement as per their demand.</p> <p>SB18. In case of any complaint, ensure its timely resolution if the problem is emanating at his level</p> <p>SB19. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer.</p> <p>SB20. Maintain good/cordial relation with customers.</p> <p>SB21. Work on the feedback received from customer regarding the product.</p>
	<p>Problem Solving</p>
	<p>SB22. Interpret quality for sheet</p> <p>SB23. Suggest improvements(if any) in process/product/materials based on results and experience</p>
	<p>Analytical Thinking</p>
	<p>SB24. Proper collection of waste material</p> <p>SB25. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience</p>
	<p>Critical Thinking</p>
	<p>SB26. Apply problem-solving approaches in different situations</p> <p>SB27. Modify process as per change in requirement/specification</p>

NOS Version Control

NOS Code	RSC/N2706		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	04/06/2013
Industry Sub-sector	Tyre	Last reviewed on	23/08/2017
Occupation	Calendering	Next review date	23/08/2021



National Occupational Standard



Overview

This unit is about carrying out housekeeping activities

Unit Code	RSC/N5001
Unit Title (Task)	Carry out housekeeping in rubber product manufacturing
Description	This unit is about carrying out housekeeping activities
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Preparing for housekeeping activities • Carry out housekeeping activities • Post housekeeping activities
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Pre housekeeping activities	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Inspect the area while taking into account various surfaces</p> <p>PC2. Ensure NO uncovered fabric is left on the unit</p> <p>PC3. Ensure the calenders and the mills are free of any compound.</p> <p>PC4. Ensure all rubber tailings on mills /mill guides/ Calender rolls are removed and placed at appropriate designated bins/skids/pallets</p> <p>PC5. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain</p> <p>PC6. Ensure that the cleaning equipment is in proper working condition</p> <p>PC7. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person</p> <p>PC8. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces</p> <p>PC9. Inform the affected people about the cleaning activity</p> <p>PC10. Display the appropriate signage for the work being conducted</p> <p>PC11. Ensure that there is adequate ventilation for the work being carried out</p> <p>PC12. Wear the personal protective equipment required for the cleaning method and materials being used</p>
Housekeeping Operations	<p>PC13. Use the correct cleaning method for the work area, type of soiling and surface</p> <p>PC14. Carry out cleaning activity without disturbing others</p> <p>PC15. Deal with accidental damage, if any, caused while carrying out the work</p> <p>PC16. Report to the appropriate person any difficulties in carrying out your work</p> <p>PC17. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill</p>
Post housekeeping activities	<p>PC18. Ensure that there is no oily substance on the floor to avoid slippage</p> <p>PC19. Ensure that no scrap material is lying around</p> <p>PC20. Maintain and store housekeeping equipment and supplies</p> <p>PC21. Follow workplace procedures to deal with any accidental damage caused during the cleaning process</p> <p>PC22. Ensure that, on completion of the work, the area is left clean and dry and meets requirements</p> <p>PC23. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored</p> <p>PC24. Dispose the waste garnered from the activity in an appropriate manner</p>

	PC25. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly
General	PC26. Maintain schedules and records for housekeeping duty PC27. Replenish any necessary supplies or consumables
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>KA1. Importance of learning proper procedures and techniques</p> <p>KA2. Implications of not following the organizational requirement for approval for undertaking the specific task</p> <p>KA3. Importance of completing the activities as per the schedule</p> <p>KA4. Implications of not following the defined procedures/work instructions</p> <p>KA5. Importance of team work</p> <p>KA6. Health, Safety and Environment guidelines, legislation and regulations as applicable</p> <p>KA7. Actions to be taken in case of non-conformity to behavioral standards of the organization</p> <p>KA8. Impact of poor practices on the individual's and organization's performance</p> <p>KA9. Importance of optimal utilization of resources</p> <p>KA10. Importance of providing feedback for improvement</p> <p>KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices</p> <p>KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization</p> <p>KA13. Importance of documentation/reporting as per guidelines and procedures</p> <p>KA14. Knowledge of do's and don'ts (company's HR instructions)</p> <p>KA15. Importance of attending trouble shooting</p> <p>KA16. Importance of subject learning/ training</p> <p>KA17. Importance of Product and its application</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The levels of hygiene required by workplace and why it is important to maintain them during your work</p> <p>KB2. How to inspect a work area to decide what cleaning it needs</p> <p>KB3. Methods and materials that used for cleaning variety of surfaces</p> <p>KB4. The types of cleansing agents that are not to be mixed together</p> <p>KB5. The correct method for cleaning equipment and/or machinery used during your work</p> <p>KB6. The importance of personal protective equipment</p> <p>KB7. Appropriate personal protective equipment for the work area, cleaning equipment, tools, materials and chemicals used</p> <p>KB8. The correct sequence for cleaning the work area</p> <p>KB9. The time taken by the treatment to work</p> <p>KB10. The importance of following manufacturer's instructions on cleaning agents</p> <p>KB11. The most appropriate place to carry out test cleans and why this should be done before applying treatments</p> <p>KB12. The importance of applying treatments evenly and the effect of not doing this</p>

Carry out housekeeping in rubber product manufacturing

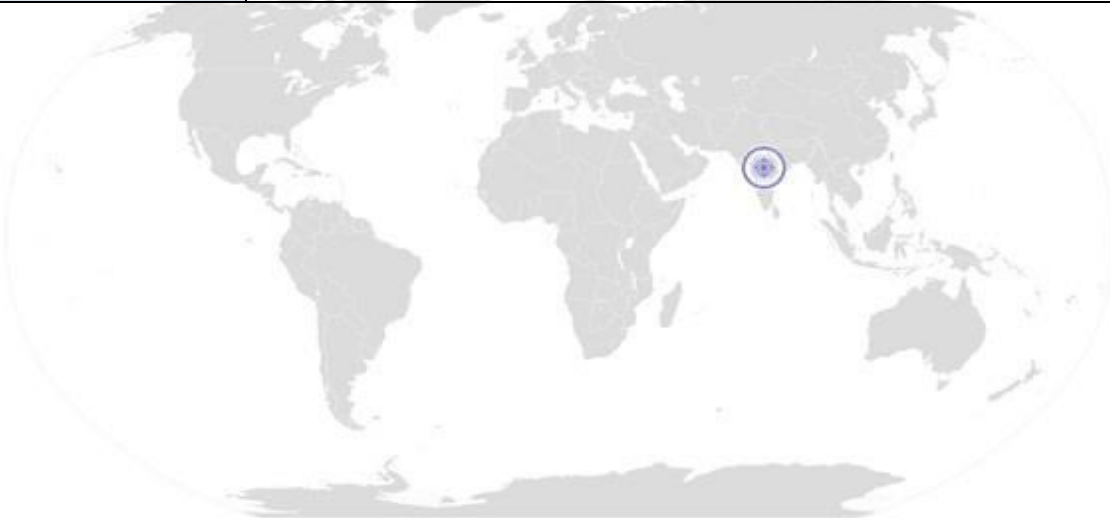
	KB13. Process of cleaning the surfaces without causing injury or damage KB14. The method to check the treated surface and equipment on completion of cleaning KB15. Procedures for reporting any unidentified soiling KB16. Procedures for disposing off waste KB17. Procedures for disposing off or storing 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
	Reading Skills
	SA4. Read and understand manuals, health and safety instructions, memos, reports etc SA5. Read images, graphs, diagrams SA6. Understand the various color codes, as per company nomenclature
	Oral Communication
	SA7. Express statements, opinions or information clearly so that others can hear and understand SA8. Respond appropriately to any queries SA9. Communicate with supervisor SA10. Communicate with upstream and downstream teams
	Life Skills
	<p style="text-align: center;">Integrity</p> SA11. Practice honesty with respect to company property and time SA12. Communicate with people in a form and manner and using language that is open and respectful SA13. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust <p style="text-align: center;">Motivation</p> SA14. Take responsibility for completing one's own work assignment SA15. Take initiative to enhance/learn skills in ones's area of work SA16. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA17. Is open to new ways of doing things SA18. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. <p style="text-align: center;">Reliability</p> SA19. Avoid absenteeism SA20. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA21. Work in disciplined factory environment

Carry out housekeeping in rubber product manufacturing

	SA22. Be punctual
B. Professional Skills	Decision Making
	The individual 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. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required)	
SB15. 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.	
SB16. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer.	
SB17. Communicate effectively to the superior/customer for any delay in supplies to the clients.	
SB18. Work towards fulfilling the customers requirement as per their demand.	
SB19. In case of any complaint, ensure its timely resolution if the problem is emanating at his level	
SB20. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer.	
SB21. Maintain good/cordial relation with customers.	

Carry out housekeeping in rubber product manufacturing

	SB22. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB23. Interpret quality for sheet
	SB24. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB25. Proper collection of waste material
	SB26. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience
Critical Thinking	
SB27. Seek clarification on problems from others	
SB28. Apply problem-solving approaches in different situations	
SB29. 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	04/06/2013
Industry Sub-sector	Tyre	Last reviewed on	23/08/2017
Occupation	Calendering	Next review date	23/08/2021



National Occupational Standard



Overview

This unit is about reporting and documentation

Unit Code	RSC/N5002
Unit Title (Task)	Carry out reporting and documentation
Description	This unit is about carrying out reporting and documentation
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Reporting of data/problem/incidents etc • Documentation • Information Security
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Reporting	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Report data/problems/incidents as applicable in a timely manner</p> <p>PC2. Report to the appropriate authority as laid down by the company</p> <p>PC3. Follow reporting procedures as prescribed by the company</p>
Recording and Documentation	<p>PC4. Identify documentation to be completed relating to one's role</p> <p>PC5. Record details accurately an appropriate format</p> <p>PC6. Complete all documentation within stipulated time according to company procedure</p> <p>PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly</p> <p>PC8. Make sure documents are available to all appropriate authorities to inspect</p>
Information Security	<p>PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures</p> <p>PC10. Inform the appropriate authority of requests for information received</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>KA1. Importance of learning proper procedures and techniques</p> <p>KA2. Implications of not following the organizational requirement for approval for undertaking the specific task</p> <p>KA3. Importance of completing the activities as per the schedule</p> <p>KA4. Implications of not following the defined procedures/work instructions</p> <p>KA5. Importance of team work</p> <p>KA6. Health, Safety and Environment guidelines, legislation and regulations as applicable</p> <p>KA7. Actions to be taken in case of non-conformity to behavioral standards of the organization</p> <p>KA8. Impact of poor practices on the individual's and organization's performance</p> <p>KA9. Importance of optimal utilization of resources</p> <p>KA10. Importance of providing feedback for improvement</p> <p>KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices</p> <p>KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization</p>

Carry Out Reporting And Documentation

	<p>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</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>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</p>
<p>Skills (S)</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. 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</p> <p>Reading Skills</p> <p>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</p> <p>Oral Communication</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor</p>

Carry Out Reporting And Documentation

	<p>SA11. Communicate with upstream and downstream teams</p> <p>Life Skills</p> <p>Integrity</p> <p>SA12. Practice honesty with respect to company property and time</p> <p>SA13. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p> <p>Motivation</p> <p>SA15. Take responsibility for completing one’s own work assignment</p> <p>SA16. Take initiative to enhance/learn skills in ones’s area of work</p> <p>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.</p> <p>SA18. Is open to new ways of doing things</p> <p>SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p> <p>Reliability</p> <p>SA20. Avoid absenteeism</p> <p>SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA22. Work in disciplined factory environment</p> <p>SA23. Be punctual</p>
<p>B. Professional Skills</p>	<p>Decision Making</p> <p>The individual needs to know and understand how to:</p> <p>SB1. Take a decision for any change/issue based on earlier successes(documented previous history)on similar issues</p> <p>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.</p> <p>SB3. Make changes in cycle time due to improved process.</p> <p>SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management</p> <p>SB5. Consult the peer group and superiors to arrive at a favourable decision.</p> <p>SB6. Use of standard available problem solving techniques for decision making</p> <p>SB7. Review and analyze the process steps to check on system non adherence and non conformity</p> <p>SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making</p> <p>SB9. Take a calculated risk with minimum losses</p> <p>Plan and Organize</p>

Carry Out Reporting And Documentation

	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. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required)
	SB15. 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.
	SB16. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer.
	SB17. Communicate effectively to the superior/customer for any delay in supplies to the clients.
	SB18. Work towards fulfilling the customers requirement as per their demand.
	SB19. In case of any complaint, ensure its timely resolution if the problem is emanating at his level
	SB20. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer.
	SB21. Maintain good/cordial relation with customers.
SB22. Work on the feedback received from customer regarding the product.	
Problem Solving	
SB23. Interpret quality for sheet	
SB24. Suggest improvements(if any) in process/product/materials based on results and experience	
Analytical Thinking	
SB25. Proper collection of waste material	
SB26. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience	
Critical Thinking	
SB27. Seek clarification on problems from others	
SB28. Apply problem-solving approaches in different situations	
SB29. 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	04/06/2013
Industry Sub-sector	Tyre	Last reviewed on	23/08/2017
Occupation	Calendering	Next review date	23/08/2021



National Occupational Standard



Overview

This unit is about carrying out quality checks

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: <ul style="list-style-type: none"> 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

Carry Out Quality Checks

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

	<p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p>
	<p>Life Skills</p> <p>Integrity</p> <p>SA12. Practice honesty with respect to company property and time</p> <p>SA13. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p> <p>Motivation</p> <p>SA15. Take responsibility for completing one’s own work assignment</p> <p>SA16. Take initiative to enhance/learn skills in ones’s area of work</p> <p>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.</p> <p>SA18. Is open to new ways of doing things</p> <p>SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p> <p>Reliability</p> <p>SA20. Avoid absenteeism</p> <p>SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA22. Work in disciplined factory environment</p> <p>SA23. Be punctual</p>
<p>B. Professional Skills</p>	<p>Decision Making</p> <p>The individual needs to know and understand how to:</p> <p>SB1. Take a decision for any change/issue based on earlier successes(documented previous history)on similar issues</p> <p>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.</p> <p>SB3. Make changes in cycle time due to improved process.</p> <p>SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management</p> <p>SB5. Consult the peer group and superiors to arrive at a favourable decision.</p> <p>SB6. Use of standard available problem solving techniques for decision making</p> <p>SB7. Review and analyze the process steps to check on system non adherence and non conformity</p> <p>SB8. Review the current SOP and other standards for continuous improvement to</p>

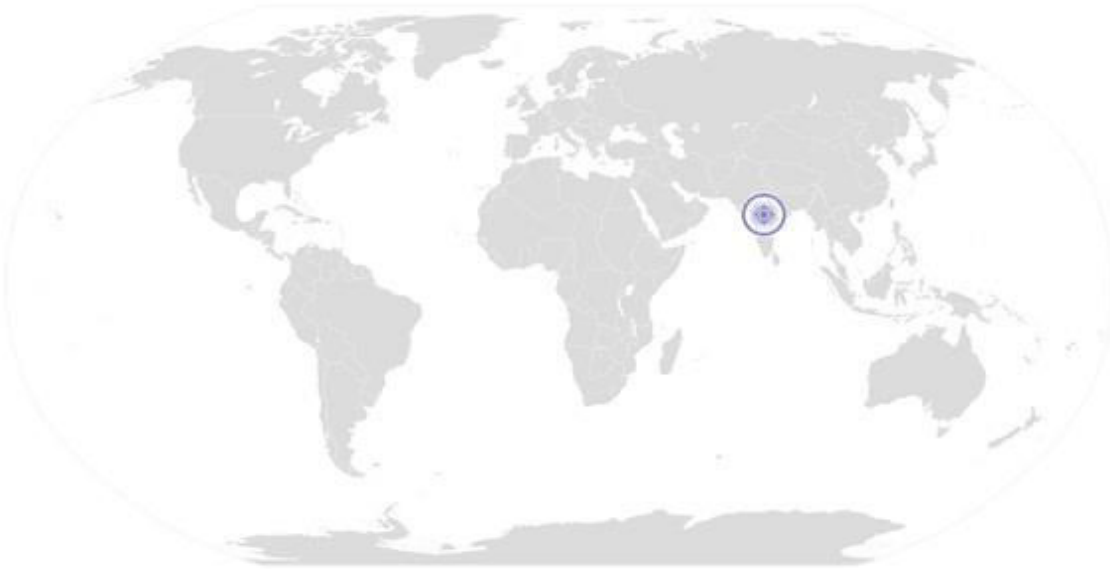
	<p>facilitate decision making</p> <p>SB9. Take a calculated risk with minimum losses</p>
	<p>Plan and Organize</p>
	<p>SB10. Plan and organize the factors of production to execute the business plan</p> <p>SB11. Fix up tasks and allotment of the same</p> <p>SB12. Assign tasks to suitable persons</p> <p>SB13. Motivate them for better output and time bound completion of tasks</p>
	<p>Customer Centricity</p>
	<p>SB14. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required)</p> <p>SB15. 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.</p> <p>SB16. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer.</p> <p>SB17. Communicate effectively to the superior/customer for any delay in supplies to the clients.</p> <p>SB18. Work towards fulfilling the customers requirement as per their demand.</p> <p>SB19. In case of any complaint, ensure its timely resolution if the problem is emanating at his level</p> <p>SB20. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer.</p> <p>SB21. Maintain good/cordial relation with customers.</p> <p>SB22. Work on the feedback received from customer regarding the product.</p>
	<p>Problem Solving</p>
	<p>SB23. Interpret quality for sheet</p> <p>SB24. Suggest improvements(if any) in process/product/materials based on results and experience</p>
	<p>Analytical Thinking</p>
	<p>SB25. Proper collection of waste material</p> <p>SB26. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience</p>
	<p>Critical Thinking</p>
	<p>SB27. Seek clarification on problems from others</p> <p>SB28. Apply problem-solving approaches in different situations</p> <p>SB29. Refer anomalies to the line manager</p>

NOS Version Control

NOS Code	RSC/N5003		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	24/02/13
Industry Sub-sector	Tyre	Last reviewed on	23/08/2017
Occupation	Calendering	Next review date	23/08/2021



National Occupational Standard



Overview

This unit is about problem identification and escalation

Carry Out 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: <ul style="list-style-type: none"> • Identify problems across: <ul style="list-style-type: none"> ○ Raw materials ○ Compounds ○ Product ○ Equipment ○ Others • Identify solutions to problems 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 procedure 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)	

Carry Out Problem Identification And Escalation

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

Carry Out Problem Identification And Escalation

	<p>communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>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</p>
	<p>Reading Skills</p>
	<p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	<p>Oral Communication</p>
	<p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p>
	<p>Life Skills</p>
	<p>Integrity</p> <p>SA12. Practice honesty with respect to company property and time</p> <p>SA13. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p>
	<p>Motivation</p> <p>SA15. Take responsibility for completing one’s own work assignment</p> <p>SA16. Take initiative to enhance/learn skills in ones’s area of work</p> <p>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.</p> <p>SA18. Is open to new ways of doing things</p> <p>SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	<p>Reliability</p> <p>SA20. Avoid absenteeism</p> <p>SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA22. Work in disciplined factory environment</p> <p>SA23. Be punctual</p>
	<p>B. Professional Skills</p>

	<p>The individual needs to know and understand how to:</p> <p>SB1. Take a decision for any change/issue based on earlier successes(documented previous history)on similar issues</p> <p>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.</p> <p>SB3. Make changes in cycle time due to improved process.</p> <p>SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management</p> <p>SB5. Consult the peer group and superiors to arrive at a favourable decision.</p> <p>SB6. Use of standard available problem solving techniques for decision making</p> <p>SB7. Review and analyze the process steps to check on system non adherence and non conformity</p> <p>SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making</p> <p>SB9. Take a calculated risk with minimum losses</p>
	<p>Plan and Organize</p>
	<p>SB10. Plan and organize the factors of production to execute the business plan</p> <p>SB11. Fix up tasks and allotment of the same</p> <p>SB12. Assign tasks to suitable persons</p> <p>SB13. Motivate them for better output and time bound completion of tasks</p>
	<p>Customer Centricity</p>
	<p>SB14. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required)</p> <p>SB15. 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.</p> <p>SB16. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer.</p> <p>SB17. Communicate effectively to the superior/customer for any delay in supplies to the clients.</p> <p>SB18. Work towards fulfilling the customers requirement as per their demand.</p> <p>SB19. In case of any complaint, ensure its timely resolution if the problem is emanating at his level</p> <p>SB20. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer.</p> <p>SB21. Maintain good/cordial relation with customers.</p> <p>SB22. Work on the feedback received from customer regarding the product.</p>
	<p>Problem Solving</p>

Carry Out Problem Identification And Escalation

	SB23. Interpret quality for sheet SB24. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB25. Proper collection of waste material SB26. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience
	Critical Thinking
	SB27. Seek clarification on problems from others SB28. Apply problem-solving approaches in different situations SB29. 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	04/06/2013
Industry Sub-sector	Tyre	Last reviewed on	23/08/2017
Occupation	Calendering	Next review date	23/08/2021



[Back to QP](#)

National Occupational Standard



Overview

This unit is about health & safety

Unit Code	RSC/N5007
Unit Title (Task)	Carry Out Health & Safety
Description	This unit is about maintaining health and safety of self and others at workplace.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • 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	<p>To be competent, the individual on the job must be able to:</p> <p>PC1. Undertake basic safety checks before operation of all machinery and equipment and report hazards to the appropriate supervisor</p> <p>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.</p> <p>PC3. Read and understand the hazards of use and contamination mentioned on the labels of chemicals, utilities etc</p> <p>PC4. Assess the risk prior to performing manual handling jobs and work is carried out according to currently recommended safe practices.</p> <p>PC5. Use equipment and materials safely and correctly and return the same to designated storage when not in use</p> <p>PC6. Dispose off waste safely and correctly in a designated area</p> <p>PC7. Recognize the risk to bystanders and take action to reduce risk associated with jobs in the workplace</p> <p>PC8. Perform work in a manner which minimizes environmental damage</p> <p>PC9. Monitor closely all procedures and work instructions for controlling risk</p> <p>PC10. Report any accidents, incidents or problems without delay to an appropriate person and take immediate necessary action to reduce further danger.</p>
Render appropriate emergency procedures	<p>PC11. Follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.</p> <p>PC12. Follow emergency procedures as per company standards and workplace requirements.</p> <p>PC13. Use Emergency equipment in accordance with manufacturers' specifications and workplace requirements.</p> <p>PC14. Provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques.</p> <p>PC15. Recover (if practical), clean, inspect/test, refurbish, replace and store the first</p>

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

Carry Out Health & Safety

	<p>KB8. Use of hazardous materials, tools and equipments</p> <p>KB9. Emergency evacuation and first aid procedures to be followed</p> <p>KB10. Personal hygiene and fitness requirements</p> <p>KB11. General duties under the relevant health and safety legislation</p> <p>KB12. What personal protective equipment and clothing should be worn and how it is cared for</p> <p>KB13. The correct and safe way to use materials and equipment required for work</p> <p>KB14. The importance of good housekeeping in the workplace</p> <p>KB15. Safe disposal methods for waste</p> <p>KB16. Methods for minimizing environmental damage during work</p>
Skills (S)	
A. Core Skills/ Generic Skills	<p>Writing Skills</p> <p>The individual on the job needs to know and understand how to:</p> <p>SA1. Record data which are required for record keeping purpose</p> <p>SA2. Report problems to the appropriate person in a timely manner</p> <p>SA3. Write descriptions and details about incidents in reports</p> <p>Reading Skills</p> <p>SA4. Read instruction manuals for hand tools and equipment</p> <p>SA5. Read instructions on work orders and procedures</p> <p>Oral Communication</p> <p>SA6. Receive instructions and seek advice from superiors</p> <p>SA7. Communicate clearly and effectively with others</p>
B. Professional Skills	<p>Decision Making</p> <p>To be competent, the individual must be able to:</p> <p>SB1. Take a decision for any change/issue based on earlier successes(documented previous history)on similar issues</p> <p>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.</p> <p>SB3. Make changes in cycle time due to improved process.</p> <p>SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management</p> <p>SB5. Consult the peer group and superiors to arrive at a favourable decision.</p> <p>SB6. Use of standard available problem solving techniques for decision making</p> <p>SB7. Review and analyze the process steps to check on system non adherence and non conformity</p> <p>SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making</p> <p>SB9. Take a calculated risk with minimum losses</p> <p>Plan and Organize</p> <p>SB10. Schedule daily activities and drawing up priorities; allocate start times,</p>

	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. 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

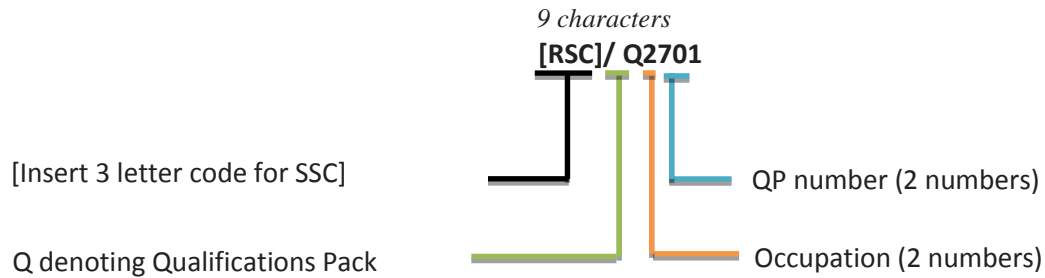
NOS Code	RSC/N5007		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	27/02/17
Industry Sub-sector	Tyre	Last reviewed on	23/08/2017
Occupation	Calendering	Next review date	23/08/2021



Annexure

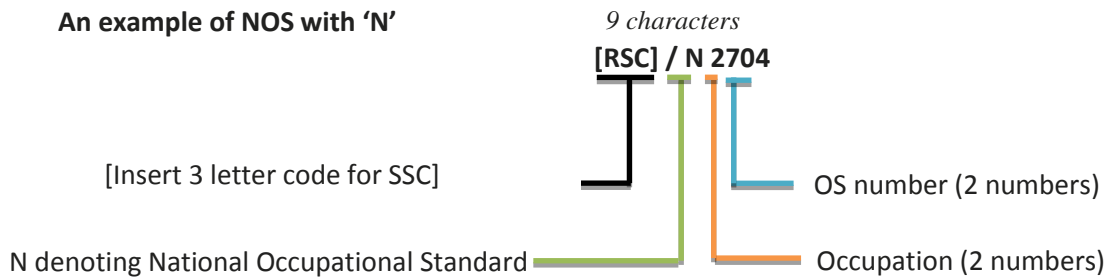
Nomenclature for QP and NOS

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 QP or NOS	N
Next two numbers	Occupation code	27
Next two numbers	OS number	01

Criteria For Assessment Of Trainees

Job Role: Rubber Calendering Operator

Qualification Pack Code: RSC/Q2701

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				Marks Allocation	
Total Marks: 700					
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out Of	Theory	Skills Practical
RSC/N2704 Perform Pre Rubber Calendering Activities	PC1. Ensure emergency safety feature of machine is working	100	3	0	3
	PC2. Ensure that the bowls /Rolls of the Calender and the heating and cooling cans/rolls are clean		6	3	3
	PC3. Set parameters for the upstream and downstream equipment as per SOP		7	5	2
	PC4. Check functioning of calendering temperature control unit (steam/ thermic fluid / cooling water flow circulation)		7	4	3
	PC5. Switch on the TCU for the system which heats up the rolls		8	5	3
	PC6. Check nip gaps and temperature are set as per requirement.		8	5	3
	PC7. Select the liner of appropriate width and length		8	5	3
	PC8. Ensure the liners are rerolled uniformly before starting the process		7	4	3
	PC9. Ensure there should not be any spillage of oil / grease on the bowls/rolls of the Calender and the surrounding area		7	4	3
	PC10. Check fabric tensioner/s are performing OK		6	4	2

	PC11. Ensure that rubber compound to be fed is approved by laboratory		6	2	4
	PC12. Check the compound, cord fabric/steel cord codes are as per specification issued by plant technical SOP and if it matches with the schedule provided by planning. Specification /sop is the one to be considered as OK.		7	5	2
	PC13. Ensure that the guards are provided where manual feeding is done on to the Calender rolls.		6	2	4
	PC14. Ensure loose gloves are not worn while feeding rubber to the Calender roll		6	4	2
	PC15. Adhere to all safety norms (like wearing protective gloves, shoes etc)		4	4	0
	PC16. Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational standards		4	4	0
	Total		100	60	40
RSC/N2705 Perform Calendering Operation Using 3 Roll/ 4 Roll Calender	PC1. Handle the rubber compound to avoid contamination	100	4	3	1
	PC2. Ensure that batch size of rubber compound is as per company's SOP		5	4	1
	PC3. Ensure the compound lab OK status before starting of the process		1	0	1
	PC4. Ensure use of appropriate liner		3	2	1
	PC5. Ensure the liners are re rolled uniformly before starting of the process		1	0	1
	PC6. Ensure the t liner which is free of contamination		1	0	1
	PC7. Select the correct compound		4	2	2
	PC8. Feed the correct quantity to the Calender rolls		4	2	2
	PC9. Ensure the film thickness as per specifications		4	2	2
	PC10. Visually inspect the rubber strip to make sure it is free from defects and meets required specifications for further processing.		3	2	1
	PC11. Organize compound at feed system (cracker mill/ warm up mill/ feed mill) through overhead conveyor to the nip of 1st & 2nd Rolls of the Calender.		3	1	2
	PC12. Pass the compound through 2 nd nip of the rolls for compound sheet production		4	2	2
	PC13. Check circular samples from both edges (10 cm. from edge) for proper compound film thickness		3	2	1
	PC14. Produce product of correct width, thickness and texture		2	1	1
	PC15. Ensure the functioning of pricker rollers		2	0	2
	PC16. Ensure that the calendered sheet is free of contamination		2	0	2
	PC17. Plan batch sequence in shifts based on raw material (Compound and cord fabric) availability/rejection to maximize output		3	1	2
	PC18. Select the correct compound		4	1	3
	PC19. Set the feed strip for correct continuous feed to the Calender nip.		4	1	3
	PC20. Visually inspect the rubber compound to make sure it is free from contamination.		3	1	2
	PC21. Visually inspect the fabric to make sure it is free from defects		3	1	2

	& dry				
	PC22. Maintain the temperature of all rolls and the line speed as per SOP		3	1	2
	PC23. Ensure that the direction of fabric has been changed for both sided coating (in two pass three roll Calender)		1	0	1
	PC24. Produce sheet of correct width, thickness Ensure that the calendered sheet is free from contamination		1	0	1
	PC25. Ensure that material wastage is within tolerance limits		1	0	1
	PC26. Ensure that no rework or rejection is generated.		4	2	2
	PC27. Match the quality of output to company's product requirements		3	2	1
	PC28. Meet production quantity targets set for the operation		2	1	1
	PC29. Follow work instructions as laid down by the company		2	1	1
	PC30. Maintain safe distance while machine is in operation		4	3	1
	PC31. Ensure housekeeping in Calendering area		4	3	1
	PC32. Ensure that the feed rolls are provided with a guard to protect hand/fingers going in between rolls		1	0	1
	PC33. Ensure the functioning of safety button / safety bar in all mills (Cracker/ Warming and feeding mill)		1	0	1
	PC34. Use the protective gloves to handle the hot rolls/compounds		4	3	1
	PC35. Adhere to all safety norms (like wearing protective gloves, mask, shoes, safety goggles etc)		3	3	0
	PC36. Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational SOP		3	3	0
	Total		100	50	50
RSC/N2706 Perform Post Rubber Calendering activities	PC1.Ensure that the correct liner is used and is clean and batched off on right size roll	100	5	2	3
	PC2.Ensure that the liners are ironed and rerolled before starting the process		5	2	3
	PC3. Roll the calendered sheet on the liner at the winding station		5	2	3
	PC4. Ensure that the wind up temperature of the calendered gum /coated fabric are as per SOP to avoid loss tack or stuck to libner problems		5	2	3
	PC5. Ensure the storage are free to load the processed fabric		5	2	3
	PC6. Pack the calendered roll properly and store it in the designated area		5	2	3
	PC7. Ensure the storage condition and FIFO while storage of the processed fabric		3	0	3
	PC8. Ensure the provision of proper identification system on the processed fabric rolls at storage		3	0	3
	PC9. Ensure the film thickness as per specifications		5	2	3
	PC10. Operate online marking(coated fabric identification) system for product identification		5	2	3
	PC11. Follow work instructions as laid down by the company		5	2	3
	PC12. Handover the equipment to the next operator in clean and good condition		5	2	3
	PC13. Dispose waste material in safe manner as per organizational		6	4	2

	SOP				
	PC14. Carry out batch marking for the right product as per instructions laid down by the company (in terms of weight, length, colour etc).		5	4	1
	PC15. Make the samples as per the sampling frequency as per organizational SOP		5	3	2
	PC16. Send the Calendered fabric full width sample to lab for testing with proper identification like Calender roll #, Size code and production date with time.		5	3	2
	PC17. Identify the location in the sample like Panel board side, middle side and rotary joint side for better understanding and ensure the dispersion of the material in the product while testing		5	3	2
	PC18. Send the remaining material to the designated storage area		5	3	2
	PC19. Ensure housekeeping in Calendering area		3	2	1
	PC20. Ensure that the feed rolls are provided with a guard to protect hand/finger going in between rolls		3	2	1
	PC21. Ensure that the direct exposure of the calendered sheet to the skin is minimized		3	2	1
	PC22. Adhere to all safety norms (like wearing protective gloves, mask, shoes, safety goggles etc)		2	2	0
	PC23. Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational		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. Ensure NO uncovered fabric is left on the unit		0	0	0
	PC3. Ensure the calenders and the mills are free of any compound.		0	0	0
	PC4. Ensure all rubber tailings on mills /mill guides/ Calender rolls are removed and placed at appropriate designated bins/skids/pallets		0	0	0
	PC5. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain		3	3	0
	PC6. Ensure that the cleaning equipment is in proper working condition		3	3	0
	PC7. 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
	PC8. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces		3	3	0
	PC9. Inform the affected people about the cleaning activity		2	2	0
	PC10. Display the appropriate signage for the work being conducted		3	3	0
	PC11. Ensure that there is adequate ventilation for the work being carried out		3	3	0
	PC12. Wear the personal protective equipment required for the cleaning method and materials being used		3	3	0
	PC13. Use the correct cleaning method for the work area, type of soiling and surface		3	3	0

	PC14. Carry out cleaning activity without disturbing others		3	3	0
	PC15. Deal with accidental damage, if any, caused while carrying out the work		3	3	0
	PC16. Report to the appropriate person any difficulties in carrying out your work		3	3	0
	PC17. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill		3	3	0
	PC18. Ensure that there is no oily substance on the floor to avoid slippage		9	3	6
	PC19. Ensure that no scrap material is lying around		9	3	6
	PC20. Maintain and store housekeeping equipment and supplies		3	3	0
	PC21. Follow workplace procedures to deal with any accidental damage caused during the cleaning process		3	3	0
	PC22. Ensure that, on completion of the work, the area is left clean and dry and meets requirements		8	2	6
	PC23. 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
	PC24. Dispose the waste garnered from the activity in an appropriate manner		9	3	6
	PC25. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly		9	3	6
	PC26. Maintain schedules and records for housekeeping duty		3	3	0
	PC27. 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. Be aware of first aid, evacuation and emergency procedures	4	2	2
PC25. Be alert of any events and do not be negligent to any safety procedures to be followed	0	0	0
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