QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR RUBBER INDUSTRY

Contents

1. Introduction and Contacts.....1
2. Qualifications Pack.....2
3. Glossary of Key Terms.....3
4. OS Units.....6
5. Annexure: Nomenclature for QP & OS....66
6. Assessment Criteria.....68

What are Occupational Standards(OS)?

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

Contact Us:
PHD House (4th Floor),
Opp. Asian Games Village,
Siri Fort Institutional Area, New Delhi - 110016
PH: 011-41009347/48
E-mail:
info@rsdcindia.in

Introduction

Qualifications Pack- Rubber Curing Operator

(Option- *Batch Curing*)

SECTOR: RUBBER INDUSTRY

SUB-SECTOR: 1.Tyre 2. Non-tyre

OCCUPATION: Moulding / Curing

REFERENCE ID: RSC/Q2201

ALIGNED TO: NCO-2015/NIL

Brief Job Description: Rubber curing operator is responsible for performing proper curing and vulcanization of the rubber products. Curing/vulcanizing involves loading the pre-assembled and pre-shaped "green"/uncured product, to be cured, appropriately on to the curing machine with appropriate moulds or feeding the rubber compound into the machine to ensure a greater consistency of the profile of the end product.

Options:

Batch Curing: Batch curing is a special process for carrying out microwave, open steam (pot heater), roto and hot air curing.

Personal Attributes: This job requires the individual to work independently and be comfortable in performing laborious work. He should be fit and energetic. The individual must be attentive and focused in undertaking assigned activities. He should be quick in responding/resolving any problem emanating in machine and material at the stage of production handled by him.

Job Details

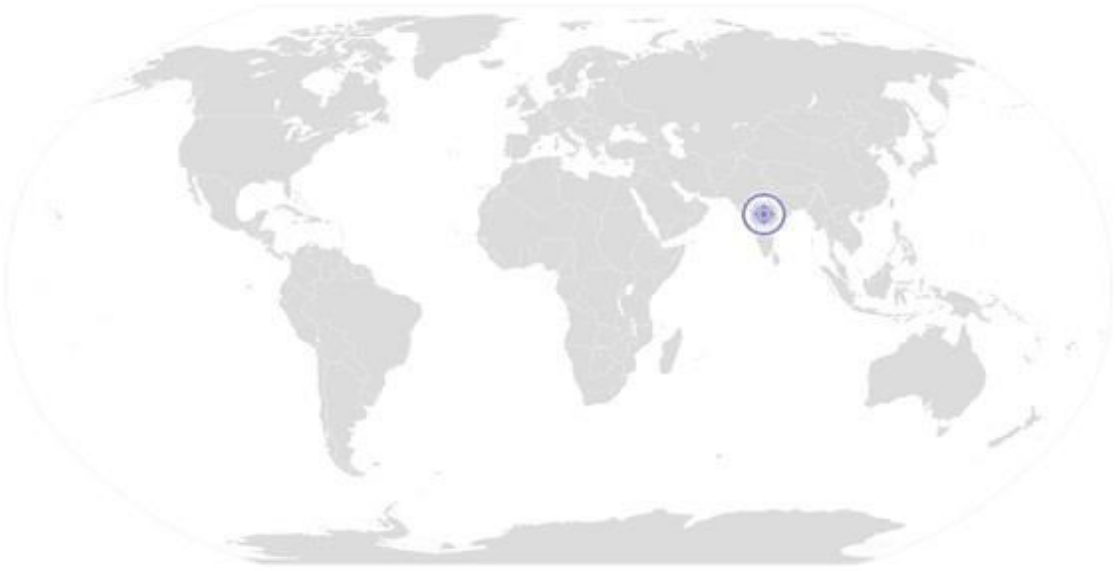
Qualifications Pack Code	**RSC/Q2201**		
Job Role	**Rubber Curing Operator**		
Credits(NSQF)	**TBD**	**Version number**	**2.0**
Sector	**Rubber Manufacturing**	**Drafted on**	**02/12/2014**
Sub-sector	**Tyre and Non Tyre**	**Last reviewed on**	**23/08/2017**
Occupation	**Moulding / Curing**	**Next review date**	**23/08/2021**
NSQC Clearance on			

Job Role	**Rubber Curing Operator**
Role Description	Rubber Curing Operator is responsible for performing proper curing and vulcanization of the rubber products. Curing/vulcanizing involves loading the pre-assembled and pre-shaped "green"/uncured product, to be cured, appropriately on to the curing machine with appropriate moulds or feeding the rubber compound into the machine to ensure a greater consistency of the profile of the end product.
NSQF level	4
Minimum Educational Qualifications*	Class VIIIth 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:** 1. RSC/N 2202 - Prepare curing system 2. RSC/N 2203 - Perform curing operation 3. RSC/N 2204 - Perform post-curing activities 4. RSC/N 5001 - Carry out housekeeping in rubber product manufacturing 5. RSC/N 5002 - Carry out reporting and documentation 6. RSC/N 5003 - Carry out quality checks 7. RSC/N 5004 - Carry out problem identification and escalation 8. RSC/N5007 - Carry out health and safety 9. RSC/N 5013 - Develop entrepreneurship skills **Options (not mandatory) :** Batch Curing 1.1 RSC/N2205 - Carry out batch process curing
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.
Unit Code	Unit Code is a unique identifier for an Occupational Standard, which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.

National Occupational Standard



Overview

This unit is about preparing the curing system for curing operations.

National Occupational Standard

Unit Code	RSC/N2202
Unit Title (Task)	Prepare Curing System
Description	This unit is about preparing the curing chamber for curing operations.
Scope	This unit/task covers the following: • Readiness of the equipments and the curing area • Raw material appropriateness as per company's SOP • Ensure housekeeping and safety in the curing area

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Equipment readiness	To be competent, the user/individual on the job must be able to PC1. Ensure that the machine is clean and ready to use. PC2. Ensure that the tools required for curing operation are ready. PC3. Follow equipment preparation process as per company SOP PC4. Apply the release agent appropriately PC5. Keep all the accessories (like cooling water, hydraulic system, temperature control unit (TCU), lubrication system) ready PC6. Set parameters for the equipment (cycle time, temperature, energy and pressure) as per company's SOP PC7. Check for steam, hot water/hot fluid temperature/pressure
Raw material appropriateness	PC8. Ensure that the compound/material required are approved by laboratory or the previous section (supplier to curing) which has assembled component has to certified as OK or of desired quality material. PC9. Ensure the availability of material for the required curing operation as per specification PC10. Ensure, by visual inspection, that raw material is of desired quality (free of contamination etc.)
Housekeeping & Safety	PC11. Ensure proper safety and maintenance of chambers PC12. Ensure precaution for dust /chemical inhaling and handling PC13. Ensure awareness of steam and hot oils leakages in work area PC14. Adhere to all safety norms (such as wearing protective gloves, mask and safety shoes). PC15. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department PC16. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.

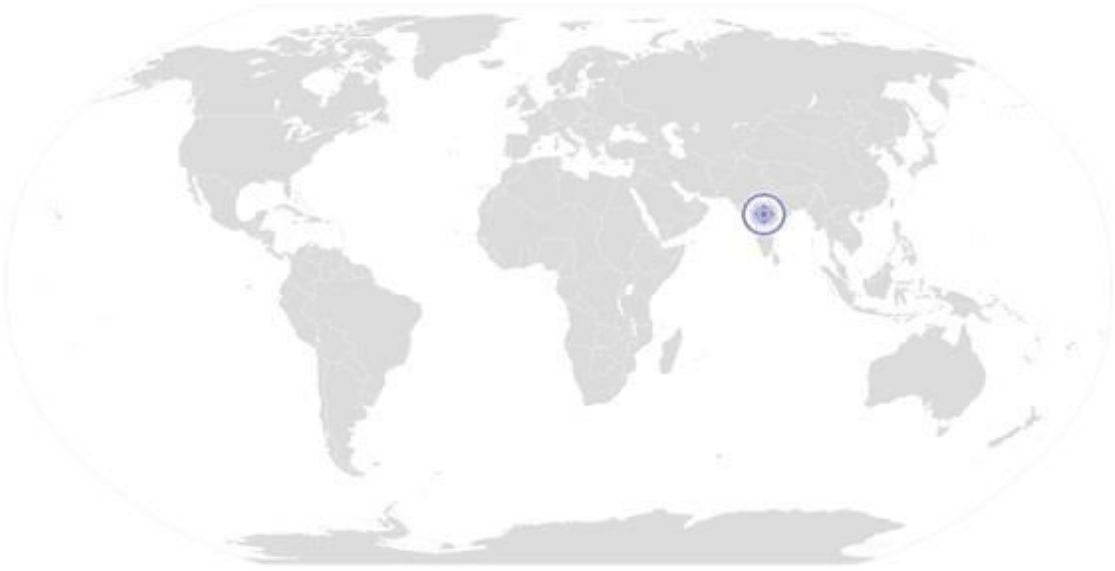
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Implications of poorly prepared chamber and equipments. KA2. Importance of identifying non-conforming materials and their storage. KA3. Risk and impact of not following defined procedures/work instructions. KA4. Escalation matrix for reporting identified problems KA5. Types of documentation in organization and importance of the same KA6. Records to be maintained and the implications of their non-maintenance.

	KA7. Importance of housekeeping activities. KA8. Health, safety and environment guidelines, legislation and regulations as applicable. KA9. Personal protection (which protective equipment to be used and how). KA10. Impact of poor practices on health, safety and environment. KA11. Potential hazards and actions to minimize them. KA12. The escalation matrix and procedures for reporting hazards. KA13. Importance of FIFO and good shop floor practices (for example, 5S). KA14. Impact of various practices on cost, quality, productivity, delivery and safety. KA15. Handover/Takeover of the equipment/work area as per the organizational SOP.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Rubber properties KB2. Parameter settings of curing chamber KB3. Vulcanization and cross linking KB4. Working of continuous and batch operational curing chamber KB5. Knowledge of physical properties norms and checking KB6. Visual examination for under cured as well over cured product KB7. Tolerance levels for various parameters (temperature and pressure KB8. The finish of the belt KB9. Application procedure of release agents KB10. Knowledge of shelf life requirements KB11. Analysis of Accelerated ageing and real time ageing characteristic of the rubber products KB12. Knowledge of various heating mediums for curing chambers viz steam heating, Thermic fluid heating, Infra red heating, LNG heating and Electric heating KB13. Knowledge of various types of heating oven viz continuous and batch type oven. KB14. Heat calculations KB15. Air trapping and humidity controls KB16. Implications of heat expansion and contraction KB17. Implications of over curing and under curing KB18. Heat values of various heating mediums KB19. Various abnormalities and suitable response for abnormalities in equipment performance. KB20. Implications of delays in the preparation process. KB21. Types of defects leading to rejections and their indicators, reasons and possible solutions. KB22. Cleanliness and safety requirements for commencing curing operation KB23. Units of measurement. KB24. Response to emergencies, for example, power failures, fire, system failures, spillages and manual intervention to avoid disasters. KB25. Knowledge of appropriate batch sizes with respect to appropriate material. KB26. Basic arithmetic, physics and chemistry
Skills (S)	
A. Core Skills/	**Writing Skills**

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

B. Professional Skills	**Decision Making**
	The individual 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 calendering activity in co-ordination with pre and post processes SB11.Organize tools and equipments as per the requirement SB12.Maximize the output to achieve the set target in timely manner
	Customer Centricity
	SB13.Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) 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. SB15.Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB16.Communicate effectively to the superior/customer for any delay in supplies to the clients. SB17.Work towards fulfilling the customers requirement as per their demand. SB18.In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB19.Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB20.Maintain good/cordial relation with customers. SB21.Work on the feedback received from customer regarding the product.
	Problem Solving

	SB22.Interpret quality for rubber compound SB23.Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB24.Proper collection of raw material SB25.Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience
	Critical Thinking
	SB26.Apply problem-solving approaches in different situations SB27.Identify repair and maintenance requirement of calender and get it ready in time



NOS Version Control

NOS Code	**RSC/N2202**		
Credits(NSQF)	**TBD**	**Version number**	**2.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**02/12/2014**
Industry Sub-sector	**Tyre and Non-Tyre**	**Last reviewed on**	**23/08/2017**
Occupation	**Moulding / Curing**	**Next review date**	**23/08/2021**

Back to QP

National Occupational Standard

Overview

This unit is about undertaking curing operation for preparation of rubber products.

National Occupational Standard

Unit Code	RSC/N2203
Unit Title (Task)	Perform Curing Operation
Description	This unit is about undertaking curing operation for preparation of rubber products.
Scope	This unit/task covers the following: • Feed the material for curing • Operate curing system • Ensure housekeeping and safety in the curing area.

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Feed the raw material appropriateness	To be competent, the user/individual on the job must be able to : PC1. Ensure, by visual inspection, that rubber compound/material is of desired quality (free of contamination etc.) PC2. Ensure that batch size of compound is as per specified quantity PC3. Handle the material properly to avoid contamination
Operation	PC4. Follow the curing process, strictly as per instructions/SOP PC5. Load the prefabricated green rubber product appropriately onto the machine PC6. Ensure proper heating and air adjustments for curing of the products to attain optimum physical properties PC7. Monitor operational procedures of vulcanizing ovens, vulcanizing chambers, tumble driers both continuous and batch wise operations PC8. Monitor various heat generating equipment and ensure their maintenance PC9. Ensure that cured product has the expected texture (if template was used for texture) PC10. Ensure that cured product is free of air blisters/de-lamination/cracks/lights PC11. Ensure that material wastage is within tolerance limits PC12. Ensure that no rework or rejection is generated. PC13. Match the quality of output to company's product requirements PC14. Meet production quantity targets set for the operation PC15. Carry out trouble shooting and rectification works of curing chamber, radiators and fans used
Housekeeping & Safety	PC16. Ensure the use of certified equipments for lifting during curing operation PC17. Perform the checks before starting the conveyor belt such as checking for people working on different part of the conveyor belt etc. PC18. Handle the moving parts like the conveyor belts, when the machine is running the feed inlet and discharge port, belts, gears and other rotating parts PC19. Operate the conveyor belt within the speed limit at all times and always be aware of the upper limit PC20. Ensure that there are no loose clothes around the conveyor belt. PC21. Handle the material using hand gloves and other safety equipment as directed by organizations safety department PC22. Adhere to all safety norms (such as wearing protective gloves, masks and shoes) PC23. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.

	PC24. Follow the guidance of safety department to contain spillages which may affect the health and safety of self or the environment in the curing area
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	The user/individual on the job needs to know and understand: KA1. Proper curing operation and its importance. KA2. Implications of poorly prepared material. KA3. The material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure. KA4. How to conduct quality and damage checks and their importance. KA5. Importance of identifying non-conforming products and their storage. KA6. Risk and impact of not following defined procedures/work instructions. KA7. The escalation matrix for reporting identified issues. KA8. Types of documentation in the organization and their importance. KA9. Records to be maintained and the implications of their non-maintenance. KA10. Importance of housekeeping & good shopfloor practices (eg. 3S & 5S) KA11. Health, safety and environment guidelines, legislations and regulations, as applicable. KA12. Personal protection (which protective equipment to be used and how). KA13. Impact of poor practices on health, safety and environment. KA14. Potential hazards and actions to minimize them. KA15. The escalation matrix and procedures for reporting hazards. KA16. Importance of FIFO KA17. Impact of various practices on cost, quality, productivity, delivery and safety. KA18. Handover/Takeover of the equipment/work area as per organizational SOP.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Curing operations and equipments in use. KB2. Operational procedures of vulcanizing ovens, vulcanizing chambers, tumble driers KB3. Vulcanization and cross linking KB4. Working of continuous and batch operational curing chamber KB5. Visual examination for under cured as well over cured products KB6. Knowledge of shelf life requirements KB7. Analysis of Accelerated ageing and real time ageing characteristic of the rubber products KB8. Knowledge of various heating mediums for curing chambers viz steam heating, Thermic fluid heating, Infra red heating, LNG heating and Electric heating KB9. Knowledge of various types of heating oven viz continuous and batch type oven. KB10. Heat calculations KB11. Air trapping and humidity controls KB12. Implications of heat expansion and contraction KB13. Heat values of various heating mediums KB14. Usage of utilities needed for heating KB15. Volume of air required to heat up the chambers for proper curing and drying KB16. Control on over curing and under curing of the product KB17. Control of blisters and moisture to avoid degradation of the products. KB18. Dimensional control and shrinkage defects of the products KB19. Cleanliness and safety requirements for curing operation. KB20. Effect of not following the sequence during curing operation on product

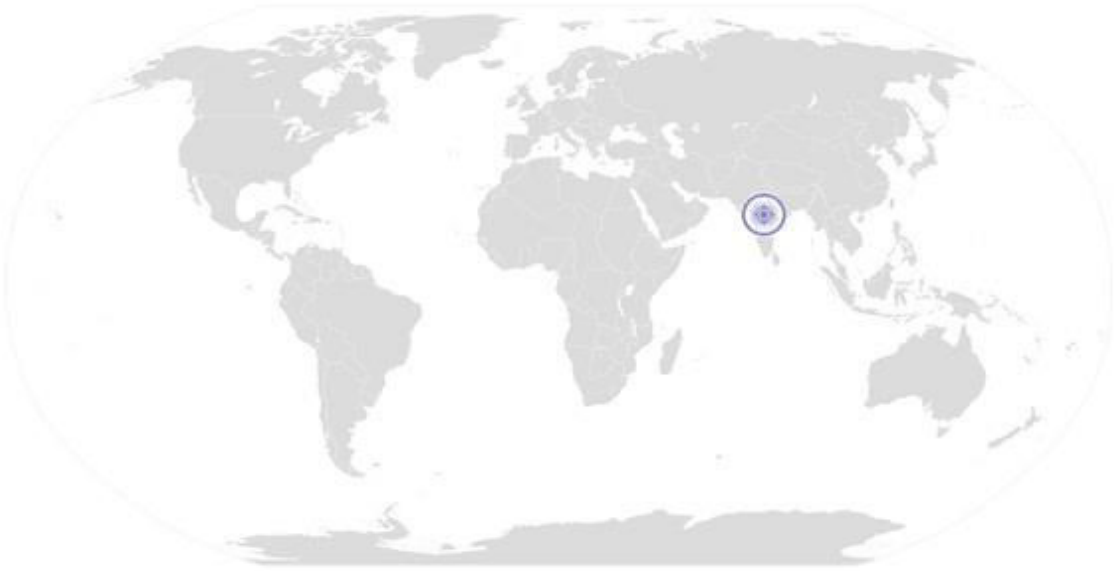
	properties. KB21. Effect of improper curing operation on the properties of product. KB22. Quality certified product KB23. The process and importance of quality checks. KB24. Types of defects leading to rejections and their indicators, reasons and possible solutions. KB25. Potential problems in curing chamber, ovens and drier operation KB26. Units of measurement. KB27. Response to emergencies, for example, power failures, fire, system failures and manual intervention to avoid disasters.
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 , activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication
	SA8. Express statements, opinions or information clearly so that others can hear and understand SA1. Respond appropriately to any queries SA2. Communicate with supervisor SA3. Communicate with upstream and downstream teams
	Life Skills

	Integrity SA4. Practice honesty with respect to company property and time SA5. Communicate with people in a form and manner and using language that is open and respectful SA6. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA7. Take responsibility for completing one's own work assignment SA8. Take initiative to enhance/learn skills in ones's area of work SA9. The capacity to learn from experience in a range of settings and scenarios and
	SA10. the capacity to reflect on and analyse one's learning. SA11. Is open to new ways of doing things SA12. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA13. Avoid absenteeism SA14. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA15. Work in disciplined factory environment SA16. Be punctual
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history) on similar issues SB2. Work out changes in case a new improved machine/equipment is added in the process or any new material /chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Plan calendering activity in co-ordination with pre and post processes SB11. Organize tools and equipments as per the requirement SB12. Maximize the output to achieve the set target in timely manner

	Customer Centricity
	SB13. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) 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. SB15. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB16. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB17. Work towards fulfilling the customers requirement as per their demand. SB18. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB19. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB20. Maintain good/cordial relation with customers. SB21. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB22. Interpret quality for rubber compound SB23. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB24. Proper collection of raw material SB25. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience
	Critical Thinking
	SB26. Apply problem-solving approaches in different situations SB27. Identify repair and maintenance requirement of calender and get it ready in time

NOS Version Control

NOS Code	RSC/N2203		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre and Non-Tyre	Last reviewed on	23/08/2017
Occupation	Moulding / Curing	Next review date	23/08/2021



Back to QP

National Occupational Standard

Overview

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

National Occupational Standard

Unit Code	RSC/N2204
Unit Title (Task)	**Perform post curing activities**
Description	This unit is about performing activities after the completion of curing operation.
Scope	This unit/task covers the following: • Finish curing operations • Material disposal removal of cured pieces, cleaning and drying operations • Form appropriate batches of the prepared product & mark the batch for proper • Send sample to lab for testing • Ensuring housekeeping and safety in curing area
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Operation	To be competent, the user/individual on the job must be able to PC1. Release the pressure to open the press and unload the cured product on completion PC2. Ensure removal of cured pieces, cleaning and drying operation for rubber product PC3. Cool the cured batch correctly and store it in the designated area PC4. Draw sample for lab testing and release. PC5. Report repair and maintenance requirement to the Supervisor
Material disposal	PC6. Dispose of waste material safely, as per organizational SOP.
Batch Marking	PC7. Ensure identification and traceability by batch marking/coding for the right product as per the instructions laid down by the company (in terms of batch number, weight, color and date stamp).
Sampling	PC8. Send sample of the prepared product in the specified sample size and method as directed by the company
Health & Safety	PC9. Handle the prepared product using hand gloves and other safety equipment. PC10. Adhere to all safety norms (such as wearing protective gloves, shoes, safety masks etc). PC11. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Implications of poorly cured product. KA2. Significance of batch marking. KA3. Importance of identifying nonconforming products and their storage. KA4. Risk and impact of not following defined procedures/work instructions. KA5. The escalation matrix and procedures for reporting identified problems. KA6. Types of documentation in the organization and their importance. KA7. Records to be maintained and the implications of their non-maintenance. KA8. Importance of housekeeping & good shopfloor practices (eg. 3S & 5S) KA9. Health, safety, and environment guidelines, legislations and regulations as applicable. KA10. Personal protection (which protective equipment to be used and how).

	KA11. Potential hazards and actions to minimize them. KA12. Impact of poor practices on health, safety and environment. KA13. The escalation matrix and procedures for reporting hazards. KA14. Handover/Takeover of the equipment/work area as per organizational SOP.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Methods for removal, cleaning and drying. KB2. Process and importance of quality checks. KB3. Batch marking techniques. KB4. Implications of incorrect batch marking. KB5. Implications of inappropriate waste disposal. KB6. Visual examination for under cured as well over cured products KB7. Knowledge of shelf life requirements KB8. Analysis of Accelerated ageing and real time ageing characteristic of the rubber products KB9. Types of defects leading to rejections and their indicators, reasons and possible solutions. KB10. Units of measurement. KB11. Coding systems for identification and traceability. KB12. Knowledge of weighing scales. KB13. Knowledge of the storage life of prepared product, ambient temperature and its effect on final product. KB14. Removal of scraps and downgraded products from each areas operations to concerned places
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication

	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history) on similar issues SB2. Work out changes in case a new improved machine/equipment is added in the process or any new material /chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to

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

NOS Version Control

NOS Code	RSC/N2204		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre and Non-Tyre	Last reviewed on	23/08/2017
Occupation	Moulding / Curing	Next review date	23/08/2021

Back to QP

National Occupational Standard

Overview

This unit is about carrying out housekeeping

National Occupational Standard

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

General	PC23. Maintain schedules and records for housekeeping duty PC24. Replenish any necessary supplies or consumables
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	To be competent, the user/individual on the job must be able to: KA1. Importance of learning proper procedures and techniques KA2. Implications of not following the organizational requirement for approval for undertaking the specific task KA3. Importance of completing the activities as per the schedule KA4. Implications of not following the defined procedures/work instructions KA5. Importance of team work KA6. Health, Safety and Environment guidelines, legislation and regulations as applicable KA7. Actions to be taken in case of non-conformity to behavioral standards of the organization KA8. Impact of poor practices on the individual's and organization's performance KA9. Importance of optimal utilization of resources KA10. Importance of providing feedback for improvement KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization KA13. Importance of documentation/reporting as per guidelines and procedures KA14. Knowledge of do's and don'ts (company's HR instructions) KA15. Importance of attending trouble shooting KA16. Importance of subject learning/ training KA17. Importance of Product and its application
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. The levels of hygiene required by workplace and why it is important to maintain them during your work KB2. How to inspect a work area to decide what cleaning it needs KB3. Methods and materials that used for cleaning variety of surfaces KB4. The types of cleansing agents that are not to be mixed together KB5. The correct method for cleaning equipment and/or machinery used during your work KB6. The importance of personal protective equipment KB7. Appropriate personal protective equipment for the work area, cleaning equipment, tools, materials and chemicals used KB8. The correct sequence for cleaning the work area KB9. The time taken by the treatment to work KB10. The importance of following manufacturer's instructions on cleaning agents KB11. The most appropriate place to carry out test cleans and why this should be done before applying treatments KB12. The importance of applying treatments evenly and the effect of not doing this

	KB13. Process of cleaning the surfaces without causing injury or damage KB14. The method to check the treated surface and equipment on completion of cleaning KB15. Procedures for reporting any unidentified soiling KB16. Procedures for disposing off waste KB17. Procedures for disposing off or storing personal protective equipment KB18. Escalation procedures for soils or stains that could not be removed
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills** The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills **Integrity** SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust

	Motivation SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history) on similar issues SB2. Work out changes in case a new improved machine/equipment is added in the process or any new material /chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Plan calendering activity in co-ordination with pre and post processes SB11. Organize tools and equipments as per the requirement SB12. Maximize the output to achieve the set target in timely manner
	Customer Centricity
	SB13. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB14. Ensure that performance of his action/operation/activity does not lead to

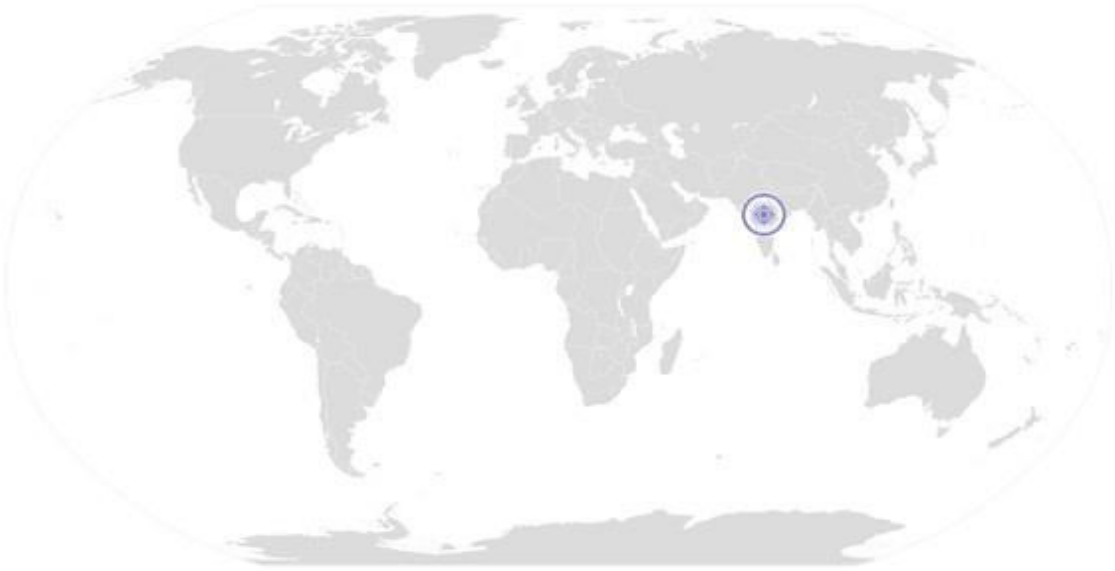
	any divergence from the specified quality of the final product as required by the customer. SB15. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB16. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB17. Work towards fulfilling the customers requirement as per their demand. SB18. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB19. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB20. Maintain good/cordial relation with customers. SB21. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB22. Interpret quality for rubber compound SB23. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB24. Proper collection of raw material SB25. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience
	Critical Thinking
	SB26. Apply problem-solving approaches in different situations SB27. Identify repair and maintenance requirement of calender and get it ready in time

NOS Version Control

NOS Code	RSC/N5001		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre and Non-Tyre	Last reviewed on	23/08/2017
Occupation	Moulding / Curing	Next review date	23/08/2021

Back to QP

National Occupational Standard



Overview

This unit is about reporting and documentation

National Occupational Standard

Unit Code	RSC/N5002
Unit Title (Task)	**Carry out reporting and documentation**
Description	This unit is about carrying out reporting and documentation
Scope	This unit/task covers the following: • Reporting of data/problem/incidents etc • Documentation • Information Security
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Reporting	To be competent, the user/individual on the job must be able to: PC1. Report data/problems/incidents as applicable in a timely manner PC2. Report to the appropriate authority as laid down by the company PC3. Follow reporting procedures as prescribed by the company
Recording and Documentation	PC4. Identify documentation to be completed relating to one's role PC5. Record details accurately an appropriate format PC6. Complete all documentation within stipulated time according to company procedure PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly PC8. Ensure documents are available to all appropriate authorities to inspect
Information Security	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures PC10. Inform the appropriate authority of requests for information received
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	KA1. To be competent, the user/individual on the job must be able to: KA2. Importance of learning proper procedures and techniques KA3. Implications of not following the organizational requirement for approval for undertaking the specific task KA4. Importance of completing the activities as per the schedule KA5. Implications of not following the defined procedures/work instructions KA6. Importance of team work KA7. Health, Safety and Environment guidelines, legislation and regulations as applicable KA8. Actions to be taken in case of non-conformity to behavioral standards of the organization KA9. Impact of poor practices on the individual's and organization's performance KA10. Importance of optimal utilization of resources KA11. Importance of providing feedback for improvement KA12. Importance of indigenous knowledge for evolving/adopting operation specific practices

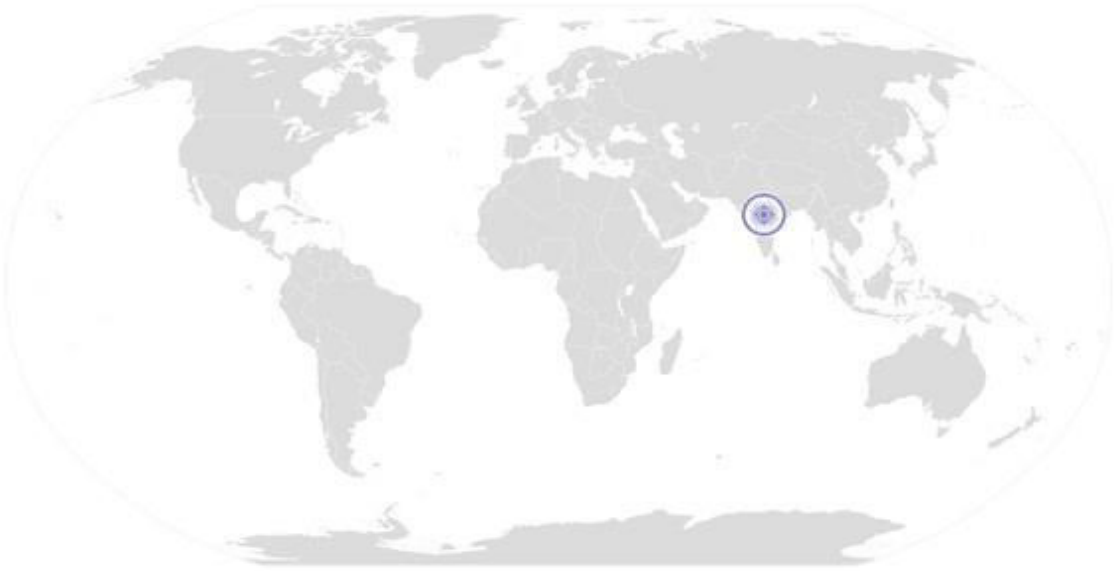
	KA13. Rectification/solution of problems/conflicts for the smooth functioning of the organization KA14. Importance of documentation/reporting as per guidelines and procedures KA15. Knowledge of do's and don'ts (company's HR instructions) KA16. Importance of attending trouble shooting KA17. Importance of subject learning/ training KA18. Importance of Product and its application
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Different methods of recording information KB2. Various documents that need to be maintained KB3. Company procedure for filling/maintaining up the documents KB4. Procedures for reporting to the appropriate authority KB5. Procedures for recording damage, breakages etc KB6. Reporting incidents where standard operating procedures are not followed KB7. The importance of complete and accurate documentation KB8. How to maintain complete documentation accurately and within agreed timescales KB9. The importance of ensuring that the documents are correct KB10. The actions to be taken if the documents are not correct KB11. The importance of maintaining the security and confidentiality of recorded information KB12. Procedures to maintain confidentiality of information KB13. The appropriate method for responding to requests for information KB14. The reporting procedures to followed before disclosing information to any outside party
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication

	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history) on similar issues SB2. Work out changes in case a new improved machine/equipment is added in the process or any new material /chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to

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

NOS Version Control

NOS Code	RSC/N5002		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre and Non- Tyre	Last reviewed on	23/08/2017
Occupation	Moulding / Curing	Next review date	23/08/2021



Back to QP

National Occupational Standard

Overview

This unit is about carrying out quality checks

National Occupational Standard

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

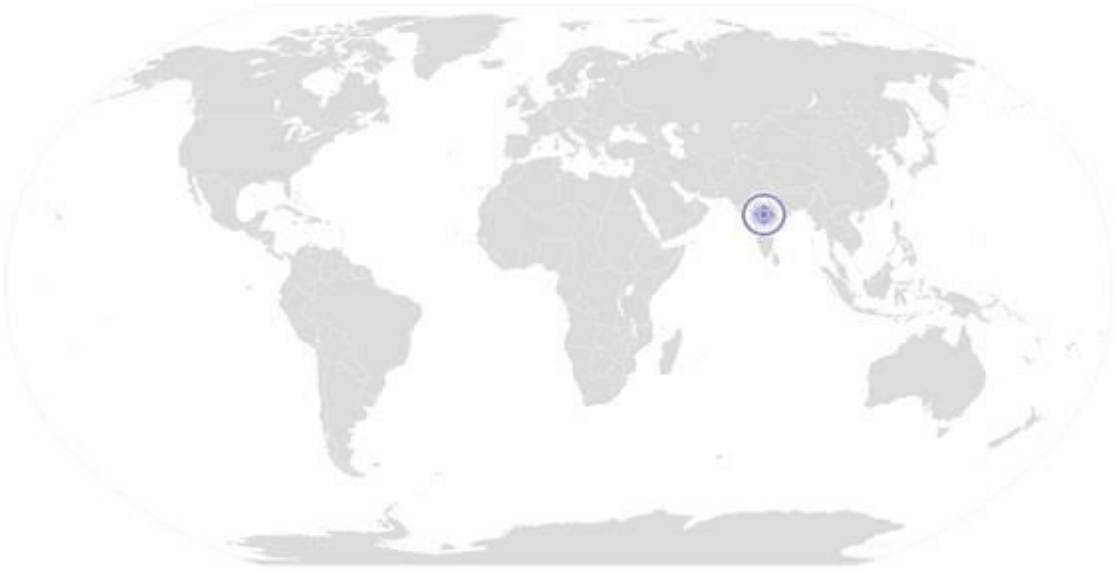
	KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization KA13. Importance of documentation/reporting as per guidelines and procedures KA14. Knowledge of do's and don'ts (company's HR instructions) KA15. Importance of attending trouble shooting KA16. Importance of subject learning/ training KA17. Importance of Product and its application
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. The importance of quality control procedures KB2. Relevance and importance of activities and how they contribute to the achievement of the quality objectives, KB3. Proper procedure for selecting the material/product and performing quality checks without affecting the material KB4. Availability of work instructions, as necessary, KB5. Characteristics of the product/material KB6. Use of suitable equipment KB7. Availability and use of monitoring and measuring devices, KB8. Requirements of records KB9. Importance of maintaining accurate up-to-date records KB10. The need to report within the stipulated time KB11. Implications of inaccurate measuring and testing instruments and equipment KB12. The cost of non-conformance to quality standards KB13. Implications (impact on internal/external customers) of defective products, materials or components
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading and Understanding Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication

	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
A. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history) on similar issues SB2. Work out changes in case a new improved machine/equipment is added in the process or any new material /chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to

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

NOS Version Control

NOS Code	**RSC/N5003**		
Credits(NSQF)	**TBD**	**Version number**	**2.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**02/12/2014**
Industry Sub-sector	**Tyre and Non-Tyre**	**Last reviewed on**	**23/08/2017**
Occupation	**Moulding / Curing**	**Next review date**	**23/08/2021**



Back to QP

National Occupational Standard

Overview

This unit is about problem identification and escalation

National Occupational Standard

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

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

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

	PC24. Ensure that no delays are caused as a result of failure to escalate problems
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	KA1. Importance of learning proper procedures and techniques KA2. Implications of not following the organizational requirement for approval for undertaking the specific task KA3. Importance of completing the activities as per the schedule KA4. Implications of not following the defined procedures/work instructions KA5. Importance of team work KA6. Health, Safety and Environment guidelines, legislation and regulations as applicable KA7. Actions to be taken in case of non-conformity to behavioral standards of the organization KA8. Impact of poor practices on the individual's and organization's performance KA9. Importance of optimal utilization of resources KA10. Importance of providing feedback for improvement KA11. Importance of indigenous knowledge for evolving/adopting operation specific practices KA12. Rectification/solution of problems/conflicts for the smooth functioning of the organization KA13. Importance of documentation/reporting as per guidelines and procedures KA14. Knowledge of do's and don'ts (company's HR instructions) KA15. Importance of attending trouble shooting KA16. Importance of subject learning/ training KA17. Importance of Product and its application
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Indicators of problems KB2. The working of the equipment and accessories(if applicable) KB3. The impact of operations on the user and equipment(if applicable) KB4. The impact of operations on the final product (if applicable) KB5. The effect of not rectifying the problems identified KB6. The reason for the occurrence of previous problems KB7. Measures and steps that have been taken to address the previous problems KB8. Possible solutions for various problems KB9. The correct method for carrying out corrective actions outlined for each problem KB10. The impact of not carrying out the corrective actions KB11. The documentation procedure for recording such problems, as per company norms KB12. The escalation matrix for reporting problems KB13. Escalation matrix for reporting unresolved problems KB14. The time frame within which in which each problem needs to be escalated KB15. Manner in which each problem needs to be escalated
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills** The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required

	format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication
	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams
	Life Skills
	Integrity SA12. Practice honesty with respect to company property and time SA13. Communicate with people in a form and manner and using language that is open and respectful SA14. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust **Motivation** SA15. Take responsibility for completing one's own work assignment SA16. Take initiative to enhance/learn skills in ones's area of work SA17. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA18. Is open to new ways of doing things SA19. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them. **Reliability** SA20. Avoid absenteeism SA21. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA22. Work in disciplined factory environment SA23. Be punctual
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Take a decision for any change/issue based on earlier successes (documented previous history) on similar issues SB2. Work out changes in case a new improved machine/equipment is added in the process or any new material /chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process.

	SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Plan calendering activity in co-ordination with pre and post processes SB11. Organize tools and equipments as per the requirement SB12. Maximize the output to achieve the set target in timely manner
	Customer Centricity
	SB13. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) 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. SB15. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB16. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB17. Work towards fulfilling the customers requirement as per their demand. SB18. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB19. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB20. Maintain good/cordial relation with customers. SB21. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB22. Interpret quality for rubber compound SB23. Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	SB24. Proper collection of raw material SB25. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience
	Critical Thinking
	SB26. Apply problem-solving approaches in different situations SB27. Identify repair and maintenance requirement of calender and get it ready in time

Version Control

NOS Code	RSC/N5004		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre and Non-Tyre	Last reviewed on	23/08/2017
Occupation	Moulding / Curing	Next review date	23/08/2021

Back to QP

National Occupational Standard

Overview

This unit is about health & safety

National Occupational Standard

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

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

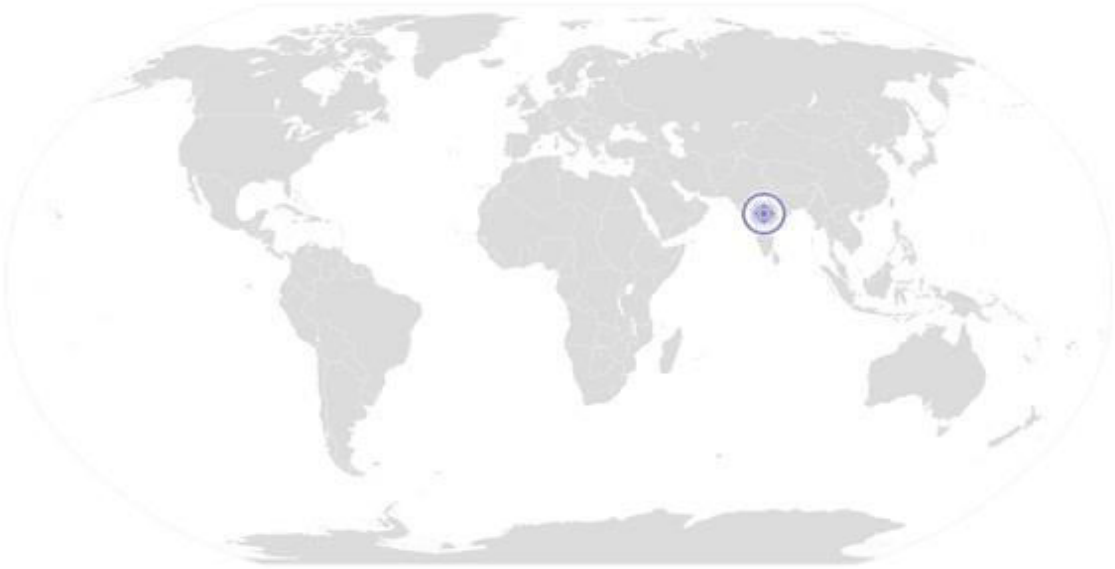
	KB8. Use of hazardous materials, tools and equipments KB9. Emergency evacuation and first aid procedures to be followed KB10. Personal hygiene and fitness requirements KB11. General duties under the relevant health and safety legislation KB12. What personal protective equipment and clothing should be worn and how it iscared for KB13. The correct and safe way to use materials and equipment required for work KB14. The importance of good housekeeping in the workplace KB15. Safe disposal methods for waste KB16. Methods for minimizing environmental damage during work
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The individual on the job needs to know and understand how to: SA1. Record data which are required for record keeping purpose SA2. Report problems to the appropriate person in a timely manner SA3. Write descriptions and details about incidents in reports
	Reading Skills
	SA4. Read instruction manuals for hand tools and equipment SA5. Read instructions on work orders and procedures
	Oral Communication
	SA6. Receive instructions and seek advice from superiors SA7. Communicate clearly and effectively with others
B. Professional Skills	**Decision Making**
	To be competent, the individual must be able to: SB1. Take a decision for any change/issue based on earlier successes(documented previous history)on similar issues SB2. Work out changes in case a new improved machine/equipment is added in the process or any new material/chemical is developed replacing existing one. SB3. Make changes in cycle time due to improved process. SB4. Use the standard operating procedure or trouble shooting manuals for trouble shooting and other reference documents approved by plant management SB5. Consult the peer group and superiors to arrive at a favourable decision. SB6. Use of standard available problem solving techniques for decision making SB7. Review and analyze the process steps to check on system non adherence and non conformity SB8. Review the current SOP and other standards for continuous improvement to facilitate decision making

	SB9. Take a calculated risk with minimum losses
	Plan and Organize
	SB10. Schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.
	Customer Centricity
	SB11. Match customer needs/specification by adjusting the processing conditions (interact with customer in case any clarification required) SB12. Ensure that performance of his action/operation/activity does not lead to any divergence from the specified quality of the final product as required by the customer. SB13. Complete the assigned task in timely manner so that the final product is delivered in the timeline given by the customer. SB14. Communicate effectively to the superior/customer for any delay in supplies to the clients. SB15. Work towards fulfilling the customers requirement as per their demand. SB16. In case of any complaint, ensure its timely resolution if the problem is emanating at his level SB17. Communicate effectively to the superior/customer for any delay in resolving the problem faced by the customer. SB18. Maintain good/cordial relation with customers. SB19. Work on the feedback received from customer regarding the product.
	Problem Solving
	SB20. Use first aid treatment in case of any injury/accident.
	Analytical Thinking
	SB21. Monitor and maintain the condition of tools and equipment SB22. Assess situation & identify appropriate control measures
	Critical Thinking
	SB23. Act, communicate and report in emergency situation

NOS Version Control

NOS Code	**RSC/N5007**		
Credits(NSQF)	**TBD**	**Version number**	**2.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**02/12/2014**
Industry Sub-sector	**Tyre & Non Tyre**	**Last reviewed on**	**23/08/2017**
Occupation	**Moulding/Curing**	**Next review date**	**23/08/2021**

National Occupational Standard



Overview

This unit is about skill of entrepreneurship.

National Occupational Standard

Unit Code	RSS/N5013
Unit Title (Task)	**Develop entrepreneurship skills**
Description	This unit is about entrepreneurship.
Scope	This unit/task covers the following tasks: • Identification of business opportunity • Sustain existing business and make continual improvement • Organizing/Directing the factors of production (productivity) • Undertaking risk and initiative • Innovation and be a role model • Keep watch and improve on quality, cost, safety, delivery and moral • Documentation
Performance Criteria(PC) w.r.t. the scope	
Element	**Performance Criteria**
Business opportunity	To be competent, the individual on the job must be able to know and understand – PC1. Awareness to identify profitable business opportunity (Opportunity can be in the form of new material in use, new process, new technology, new market etc) PC2. Maintain the confidentiality till the completion of working on the idea PC3. Discuss the opportunity (with trusted ones) to evaluate its feasibility PC4. Arrange/organize related documents/information
Sustain existing business	PC5. Monitor the development at competitors' end PC6. Sustain existing business and make continual improvements PC7. Evaluate possibilities of process simplification , combining process steps (wherever applicable) ,reducing manpower dependency PC8. Acquire new information for optimal allocation of resources before others to gain profit
Factors of Production	PC9. Understanding the requirement of different factors of production: land, labour and capital PC10. Acquire and deploy necessary resources for exploitation of identified business opportunity PC11. Develop a business plan PC12. Acquire financial and material resources PC13. Organize to hire experienced and efficient human resource PC14. Arrange for best factory set up PC15. Raise capital from different sources keeping the interest cost at minimum PC16. Arrange for purchase, effective utilization and management of the resources
Risk and initiative	PC17. Assume risk and deal with uncertainty PC18. Take initiative to start something new (process, product etc.)

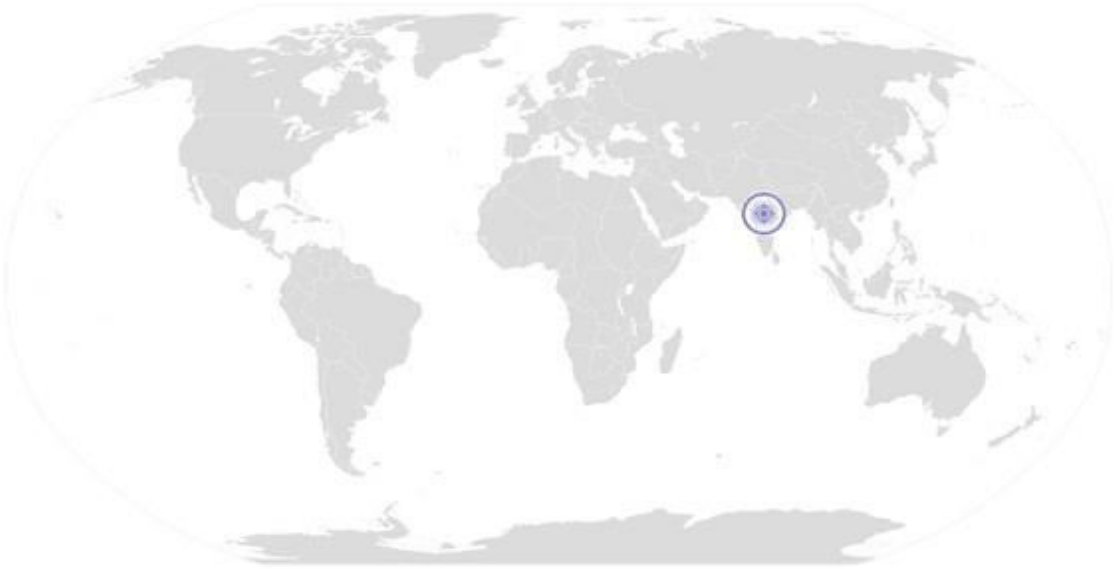
Innovation	PC19. Convert new idea into successful innovation PC20. Replace in whole or in part inferior offerings creating new products/business model PC21. Develop new combinations of existing inputs
Bring in Improvement	PC22. Work competitive towards cost reduction through efficiency, improvement in quality, bring in new product/features of product PC23. Acquire semi or fully automatic units for improved productivity
Documentation	PC24. Collection and recording of all information PC25. Compilation, analysis and documentation PC26. Correspondence with venders, clients, govt. agencies and public PC27. Document notifications/letters from Government agencies and management
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Efficient organization and management of factors of production KA2. Planning and organizing activities through administrative and financial management KA3. Analyzing shortfall/achievement for further improvement KA4. Importance of maintaining confidentiality of new business plan KA5. Documentation for self-awareness and publication KA6. Procedures for presenting/discussing new business opportunity KA7. Procedures for approval of new plan
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Cost-benefit analysis of the business opportunity KB2. Finance management procedures KB3. Environmental issues and quality standards KB4. Taking advantage of market opportunities by planning, organizing and deploying resources KB5. Human resource management KB6. Data collection, analysis and documentation KB7. Computer application- data processing, report typing etc. KB8. Importance of patent and copyright KB9. Latest technology in use to gather information KB10. Implications of delay in working on identified business opportunity KB11. Effect of disclosing innovations without following set procedures
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Express ideas clearly through written document SA2. Prepare letters, mails and other documents for communication SA3. Prepare proposals and feedback to higher authorities SA4. Correspond with other institutions/department SA5. Report writing, organizing data and information using computer applications

	Reading Skills
	SA6. Read and understand the contents published in scientific journals, SA7. manuals, newspaper and other publications SA8. Read, understand and interpret various rules, schemes etc. SA9. Read and understand images, graphs, charts, diagrams etc. SA10. Read and understand articles and interpret
	Oral Communication
	SA11. Gather information using contacts SA12. Express statements, opinions or information clearly so that the receiver can hear and understand SA13. Respond appropriately to queries SA14. Communicate effectively to team members and people contacted
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Arrive at proper decisions according to different situations SB2. Take forward selected ideas and reject others SB3. Optimally allocate resources SB4. Chart out the process flow to take the identified ideas forward
	Plan and Organize
	SB5. Plan and organize the factors of production to execute the business plan SB6. Fix up tasks and allotment of the same SB7. Assign tasks to suitable persons SB8. Motivate them for better output and time bound completion of tasks
	Customer Centricity
	SB9. Correspond effectively with clients relating to product feedback and for communicating/collecting any other information.
	Problem Solving
	SB10. Solve problems related to equipment and supply of inputs SB11. Solve problems among colleagues SB12. Diagnose problems and resolve at initial stage itself
	Analytical Thinking
	SB13. Suggest improvement over the existing systems SB14. Analyze the feasibility of opportunities SB15. Perform cost-benefit analysis
	Critical Thinking
	SB16. Take appropriate action/seek expert opinion to overcome critical situations

NOS Version Control

NOS Code	RSC/N5013		
Credits(NSQF)	TBD	Version number	2.0
Industry	Rubber Manufacturing	Drafted on	02/12/2014
Industry Sub-sector	Tyre & Non Tyre	Last reviewed on	23/08/2017
Occupation	Moulding/Curing	Next review date	23/08/2021

National Occupational Standard



Overview

This unit is about carrying out microwave, open steam (pot heater), roto and hot air curing.

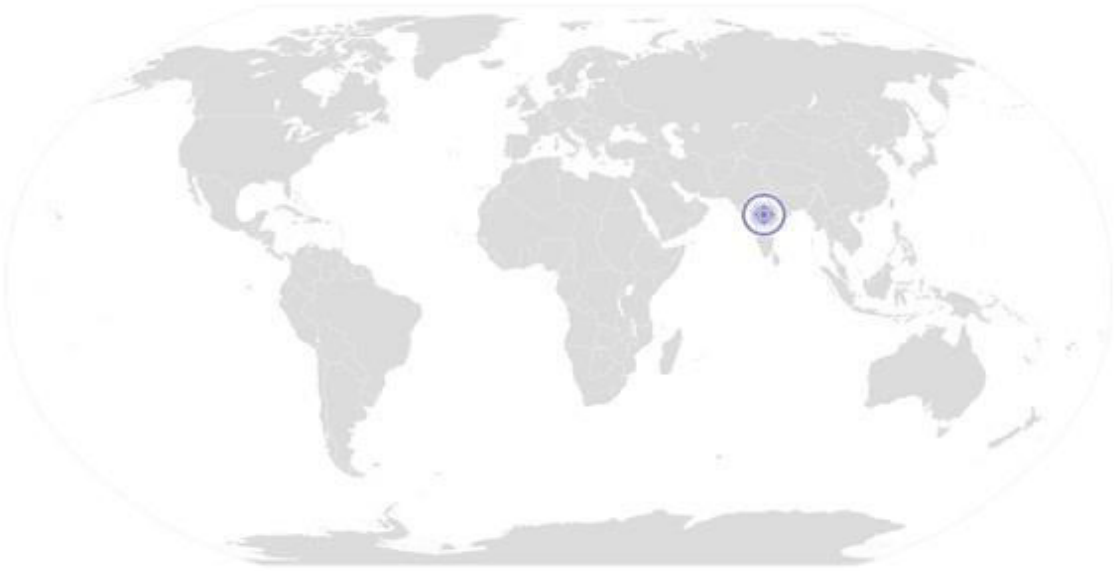
National Occupational Standard

Unit Code	RSC/N2205
Unit Title (Task)	**Carry Out batch process curing**
Description	This unit is about carrying out microwave, open steam (pot heater), roto and hot air curing.
Scope	This unit/task covers the following: • Ensure the readiness of equipment • Ensure the readiness of material to be cured • Carrying out curing by different methods • Safety in the work area
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Equipment readiness	To be competent, the user/individual on the job must be able to PC1. Ensure that the machine is clean and ready to use. PC2. Ensure that the tools required for curing operation are ready. PC3. Follow equipment preparation process as per company SOP PC4. Set parameters for the equipment (cycle time, temperature, energy and pressure) as per company's SOP
Raw material appropriateness	PC5. Ensure the availability of material for the required curing operation as per specification PC6. Ensure, by visual inspection, that material is of desired quality (free of contamination etc.)
Curing Operation	PC7. Carry out microwave curing, the product to be cured is passed through a chamber where microwave impinges and heats the uncured product to cure. PC8. Carry out pot curing or open steam curing as steam is used for curing in many other products including molded ones such as tyre. PC9. Ensure that in pot curing, the uncured products are loaded properly in the cold mould and multiple moulds are placed in the pot heater PC10. Open steam is made to circulate inside as per the requirement to cure the product PC11. Carry out roto curing, ensure that the vessel keeps rotating during heating process to uniformly heat the uncured rubber articles PC12. Undertake hot air curing meant for lower temperature cures, for thin gauge articles sensitive to higher temperature and also higher temperature degradation.
Health & Safety	PC13. Ensure proper safety and maintenance of curing system PC14. Adhere to all safety norms (such as wearing protective gloves, mask and safety shoes). PC15. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department PC16. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.
Knowledge and Understanding (K)	
A. Organizational	The user/individual on the job needs to know and understand: KA1. Proper curing operation and its importance.

Context (Knowledge of the company / organization and its processes)	KA2. Implications of poorly prepared material. KA3. The material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure. KA4. How to conduct quality and damage checks and their importance. KA5. Importance of identifying non-conforming products and their storage. KA6. Risk and impact of not following defined procedures/work instructions. KA7. The escalation matrix for reporting identified issues. KA8. Types of documentation in the organization and their importance. KA9. Records to be maintained and the implications of their non-maintenance. KA10. Importance of housekeeping and good shop floor practices (eg. 3S & 5S) KA11. Health, safety and environment guidelines, legislations and regulations, as applicable. KA12. Personal protection (which protective equipment to be used and how). KA13. Impact of poor practices on health, safety and environment. KA14. Potential hazards and actions to minimize them. KA15. The escalation matrix and procedures for reporting hazards. KA16. Importance of FIFO KA17. Impact of various practices on cost, quality, productivity, delivery and safety. KA16. Handover/Takeover of the equipment/work area as per organizational SOP.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Rubber properties KB2. Parameter settings of curing systems KB3. Working of continuous and batch operational curing chamber KB4. Knowledge of physical properties norms and checking KB5. Visual examination for under cured as well over cured product KB6. Tolerance levels for various parameters (temperature and pressure) KB7. Heat calculations KB8. Microwave operations KB9. Air trapping and humidity controls KB10. Implications of heat expansion and contraction KB11. Heat values of various heating mediums KB12. Various abnormalities and suitable response for abnormalities in equipment performance. KB13. Implications of delays in the preparation process. KB14. Effect of improper curing operation on the properties of product. KB15. Potential problems in curing operations KB16. Types of defects leading to rejections and their indicators, reasons and possible solutions. KB17. Cleanliness and safety requirements for commencing curing operation KB18. Units of measurement. KB19. Response to emergencies, for example, power failures, fire, system failures, spillages and manual intervention to avoid disasters. KB20. Knowledge of appropriate batch sizes with respect to appropriate material. KB21. Basic arithmetic, physics and chemistry
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills** The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication

	SA2. Fill up appropriate activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	Reading and Understanding Skills
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication
	SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, any such Schemes initiated by the organization)
	Integrity
	SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust
	Motivation
	SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in ones's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.
	Reliability
	SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual
B. Professional Skills	**Material and Equipment Handling**

	The user/individual on the job needs to know and understand how to: SB1. Handle working of various curing systems SB2. Handle steam, hot oils and water on production floor SB3. Handle and operate microwave SB4. Handle the working with hot molds SB5. Handle various types of material handling equipment SB6. Apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological principles needed to explore and adapt systems.
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB7. Diagnose common problems in the system in use and materials based on visual inspection SB8. Suggest improvements(if any) in process based on experience SB9. Take appropriate decisions regarding curing system as per the requirement SB10. Wastage reduction and optimal usage of material during curing operation



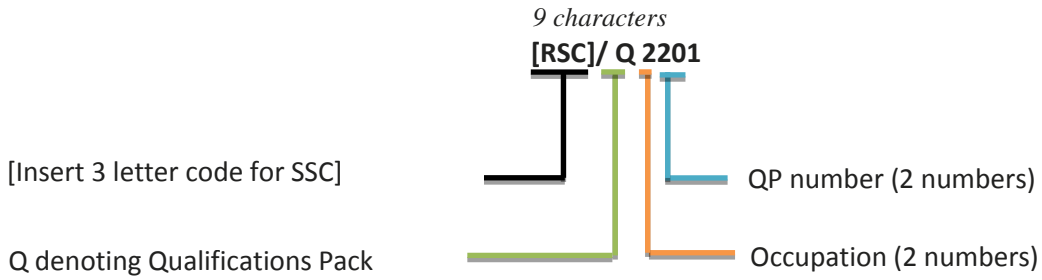
NOS Version Control

NOS Code	**RSC/N2205**		
Credits(NSQF)	**TBD**	**Version number**	**2.0**
Industry	**Rubber Manufacturing**	**Drafted on**	**02/12/2014**
Industry Sub-sector	**Tyre & Non Tyre**	**Last reviewed on**	**23/08/2017**
Occupation	**Moulding/Curing**	**Next review date**	**23/08/2021**

Annexure

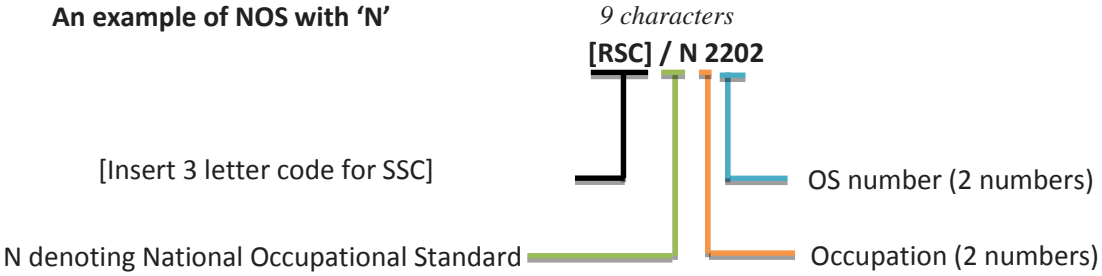
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



Back to top…

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

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

Sequence	Description	Example
Three letters	Industry name	[RSC]
Slash	/	/
Next letter	Whether **Q**P or NOS	N
Next two numbers	Occupation code	22
Next two numbers	OS number	02

Criteria For Assessment Of Trainees

Job Role: Rubber Curing Operator
Qualification Pack Code: RSC/Q2201
Sector Skill Council: Rubber Skill Development Council

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Compulsory NOS Total Marks: 700				Marks Allocation	
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out Of	Theory	Skills Practical
RSC/N2202 Prepare curing system	PC1. Ensure that the machine is clean and ready to use.	100	5	3	2
	PC2. Ensure that the tools required for curing operation are ready.		5	3	2
	PC3. Follow equipment preparation process as per company SOP		10	5	5
	PC4. Apply the release agent appropriately		9	4	5
	PC5. Keep all the accessories (like cooling water, hydraulic system, temperature control unit (TCU), lubrication system) ready		10	5	5
	PC6. Set parameters for the equipment (cycle time, temperature, energy and pressure) as per company's SOP		8	4	4
	PC7. Check for steam, hot water/hot fluid temperature/pressure		5	0	5
	PC8.Ensure that the compound/material required are approved by laboratory or the previous section (supplier to curing) which has assembled component has to certified as OK or of desired quality material.		7	4	3
	PC9. Ensure the availability of material for the required curing operation as per specification		7	4	3
	PC10. Ensure, by visual inspection, that raw material is of desired quality (free of contamination etc.)		7	4	3
	PC11. Ensure proper safety and maintenance of chambers		5	4	1
	PC12. Precaution for dust / chemical inhaling and handling		4	4	0

	PC13. Awareness of steam and hot oils leakages in work area		5	4	1
	PC14. Adhere to all safety norms (such as wearing protective gloves, mask and safety shoes).		5	4	1
	PC15. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department		4	4	0
	PC16. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		4	4	0
	Total		**100**	**60**	**40**
RSC/N2203 Perform curing operation	PC1. Ensure, by visual inspection, that rubber compound/material is of desired quality (free of contamination etc.)	100	2	0	2
	PC2. Ensure that batch size of compound is as per specified quantity		2	0	2
	PC3. Handle the material properly to avoid contamination		2	0	2
	PC4. Curing process to be strictly followed as per instructions /SOP		6	1	5
	PC5. Load the prefabricated green rubber product appropriately onto the machine		6	1	5
	PC6. Proper heating and air adjustments for curing of the products to attain optimum physical properties		6	1	5
	PC7. Monitor operational procedures of vulcanizing ovens, vulcanizing chambers, tumble driers both continuous and batch wise operations		6	1	5
	PC8. Monitor various heat generating equipment and ensure their maintenance		6	1	5
	PC9. Ensure that cured product has the expected texture (if template was used for texture)		5	1	4
	PC10. Ensure that cured product is free of air blisters/de-lamination/cracks/lights		5	1	4
	PC11. Ensure that material wastage is within tolerance limits		5	1	4
	PC12. Ensure that no rework or rejection is generated.		5	1	4
	PC13. Match the quality of output to company's product requirements		5	1	4
	PC14. Meet production quantity targets set for the operation		1	1	0
	PC15. Carry out trouble shooting and rectification works of curing chamber, radiators and fans used		1	1	0
	PC16. Ensure the use of certified equipments for lifting during curing operation		5	2	3
	PC17.Perform the checks before starting the conveyor belt such as checking for people working on different part of the conveyor belt etc.		5	2	3
	PC18. Handle the moving parts like the conveyor belts, when the machine is running the feed inlet and discharge port, belts, gears and other rotating parts		5	2	3
	PC19. Operate the conveyor belt within the speed limit at all times and always be aware of the upper limit		4	2	2
	PC20. Ensure that there are no loose clothes around the conveyor belt.		4	2	2
	PC21.Handle the material using hand gloves and other safety equipment as directed by organizations safety department		4	2	2
	PC22. Adhere to all safety norms (such as wearing protective		4	2	2

	gloves, masks and shoes)				
	PC23. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		3	2	1
	PC24. Follow the guidance of safety department to contain spillages which may affect the health and safety of self or the environment in the curing area		3	2	1
	Total		**100**	**30**	**70**
RSC/N2204 Perform post-curing activities	PC1. Release the pressure to open the press and unload the cured product on completion	100	9	4	5
	PC2. Removal of cured pieces, cleaning and drying operation for rubber product		10	5	5
	PC3. Cool the cured batch correctly and store it in the designated area		9	4	5
	PC4. Draw sample for lab testing and release.		10	5	5
	PC5. Report repair and maintenance requirement to the Supervisor		6	2	4
	PC6. Dispose of waste material safely, as per organizational SOP.		10	6	4
	PC7. Ensure identification and traceability by batch marking/coding for the right product as per the instructions laid down by the company (in terms of batch number, weight, color and date stamp).		10	4	6
	PC8. Send sample of the prepared product in the specified sample size and method as directed by the company		11	5	6
	PC9. Handle the prepared product using hand gloves and other safety equipment.		9	5	4
	PC10. Adhere to all safety norms (such as wearing protective gloves, shoes, safety masks etc).		8	5	3
	PC11. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		8	5	3
	Total		**100**	**50**	**50**
RSC/N5001 Carry out housekeeping in rubber product manufacturing	PC1. Inspect the area while taking into account various surfaces	100	3	3	0
	PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain		3	3	0
	PC3. Ensure that the cleaning equipment is in proper working condition		3	3	0
	PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person		3	3	0
	PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces		3	3	0
	PC6. Inform the affected people about the cleaning activity		2	2	0
	PC7. Display the appropriate signage for the work being conducted		3	3	0
	PC8. Ensure that there is adequate ventilation for the work being carried out		3	3	0
	PC9. Wear the personal protective equipment required for the cleaning method and materials being used		3	3	0
	PC10. Use the correct cleaning method for the work area, type of		3	3	0

	soiling and surface				
	PC11. Carry out cleaning activity without disturbing others		3	3	0
	PC12. Deal with accidental damage, if any, caused while carrying out the work		3	3	0
	PC13. Report to the appropriate person any difficulties in carrying out your work		3	3	0
	PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill		3	3	0
	PC15. Ensure that there is no oily substance on the floor to avoid slippage		9	3	6
	PC16. Ensure that no scrap material is lying around		9	3	6
	PC17. Maintain and store housekeeping equipment and supplies		3	3	0
	PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process		3	3	0
	PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements		8	2	6
	PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored		3	3	0
	PC21. Dispose the waste garnered from the activity in an appropriate manner		9	3	6
	PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly		9	3	6
	PC23. Maintain schedules and records for housekeeping duty		3	3	0
	PC24. Replenish any necessary supplies or consumables		3	3	0
	Total		**100**	**70**	**30**
RSC/N5002 Carry Out Reporting And Documentation	PC1. Report data/problems/incidents as applicable in a timely manner	100	12	8	4
	PC2. Report to the appropriate authority as laid down by the company		12	8	4
	PC3. Follow reporting procedures as prescribed by the company		12	8	4
	PC4. Identify documentation to be completed relating to one's role		10	6	4
	PC5. Record details accurately an appropriate format		16	6	10
	PC6. Complete all documentation within stipulated time according to company procedure		14	4	10
	PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly		6	4	2
	PC8. Make sure documents are available to all appropriate authorities to inspect		6	4	2
	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures		6	6	0
	PC10. Inform the appropriate authority of requests for information received		6	6	0
	Total		**100**	**60**	**40**
RSC/N5003 Carry Out Quality Checks	PC1. Ensure that total range of checks are regularly and consistently performed	100	24	10	14
	PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required		24	10	14

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

	problem				
	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**
RSC/N5013 Develop Entrepreneurship Skills	PC1.Importance of being aware to identify profitable business opportunity(Opportunity can be in the form of new material in use, new process, new technology, new market etc)	100	2	2	0
	PC2.Maintain the confidentiality till the completion of working on the idea		3	2	1
	PC3.Discuss the opportunity (with trusted ones) to evaluate its feasibility		5	3	2
	PC4.Arrange/organize related documents/information		4	3	1
	PC5.Monitor the development at competitors' end		2	2	0
	PC6.Sustain existing business and make continual improvements		4	2	2
	PC7.Evaluate possibilities of process simplification , combining process steps (wherever applicable) ,reducing manpower dependency		4	2	2
	PC8.Acquire new information for optimal allocation of resources before others to gain profit		4	2	2
	PC9.Understanding the requirement of different factors of production: land, labour and capital		5	3	2
	PC10.Acquire and deploy necessary resources for exploitation of identified business opportunity		5	3	2
	PC11.Develop a business plan		5	3	2
	PC12.Acquire financial and material resources		5	3	2
	PC13.Organize to hire experienced and efficient human resource		4	2	2
	PC14.Arrange for best factory set up		4	2	2
	PC15.Raise capital from different sources keeping the interest cost at minimum		4	2	2
	PC16.Arrange for purchase, effective utilization and management of the resources		4	2	2
	PC17.Assume risk and deal with uncertainty		2	0	2

	PC18.Take initiative to start something new (process, product etc.)		2	0	2
	PC19.Convert new idea into successful innovation		2	0	2
	PC20.Replace in whole or in part inferior offerings creating new products/business model		4	2	2
	PC21.Develop new combinations of existing inputs		4	2	2
	PC22.To be more competitive work towards cost reduction through efficiency, improvement in quality, bring in new product/features of product		5	3	2
	PC23.Acquire semi or fully automatic units for improved productivity		5	3	2
	PC24.Collection and recording of all information		3	3	0
	PC25.Compilation, analysis and documentation		3	3	0
	PC26.Correspondence with venders, clients, govt. agencies and public		3	3	0
	PC27.Document notifications/letters from Government agencies and management		3	3	0
	Total		**100**	**60**	**40**

OPTIONS

Optional 1.1 : Curing Operator- Special Process

Total Marks: 100				**Marks Allocation**	
Assessment outcomes	**Assessment Criteria for outcomes**	**Total Marks**	**Out Of**	**Theory**	**Skills Practical**
RSC/N0902 Carry Out batch process curing	PC1. Ensure that the machine is clean and ready to use.	100	4	2	2
	PC2. Ensure that the tools required for curing operation are ready.		6	4	2
	PC3. Follow equipment preparation process as per company SOP		4	2	2
	PC4. Set parameters for the equipment (cycle time, temperature, energy and pressure) as per company's SOP		6	3	3
	PC5. Ensure the availability of material for the required curing operation as per specification		10	6	4
	PC6. Ensure, by visual inspection, that material is of desired quality (free of contamination etc.)		10	6	4
	PC7. Carry out microwave curing, the product to be cured is passed through a chamber where microwave impinges and heats the uncured product to cure.		7	4	3
	PC8. Carry out pot curing or open steam curing as steam is used for curing in many other products including molded ones such as tyre.		7	4	3
	PC9. In pot curing, ensure that the uncured products are loaded properly in the cold mould and multiple moulds are placed in the pot heater.		6	3	3
	PC10. Open steam is made to circulate inside as per the requirement to cure the product		6	3	3
	PC11. Carry out roto curing, ensure that the vessel keeps rotating during heating process to uniformly heat the uncured rubber articles		7	4	3
	PC12. Undertake hot air curing meant for lower temperature		7	4	3

	cures, for thin gauge articles sensitive to higher temperature and also higher temperature degradation.				
	PC13. Ensure proper safety and maintenance of curing system		5	2	3
	PC14. Adhere to all safety norms (such as wearing protective gloves, mask and safety shoes).		5	3	2
	PC15. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department		5	5	0
	PC16. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.		5	5	0
	Total		**100**	**60**	**40**