

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR RUBBER INDUSTRY



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What are Occupational Standards(OS)?

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

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Introduction

Qualifications Pack- Moulding/Curing Supervisor

SECTOR: RUBBER INDUSTRY

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

OCCUPATION: Moulding / Curing

REFERENCE ID: RSC/ Q 0213

ALIGNED TO: NCO-2004/NIL

Brief Job Description: A Moulding/Curing Supervisor is responsible to supervise the moulding and curing of rubber products as well as monitor the curing area with respect to machines, equipments, material and workers.

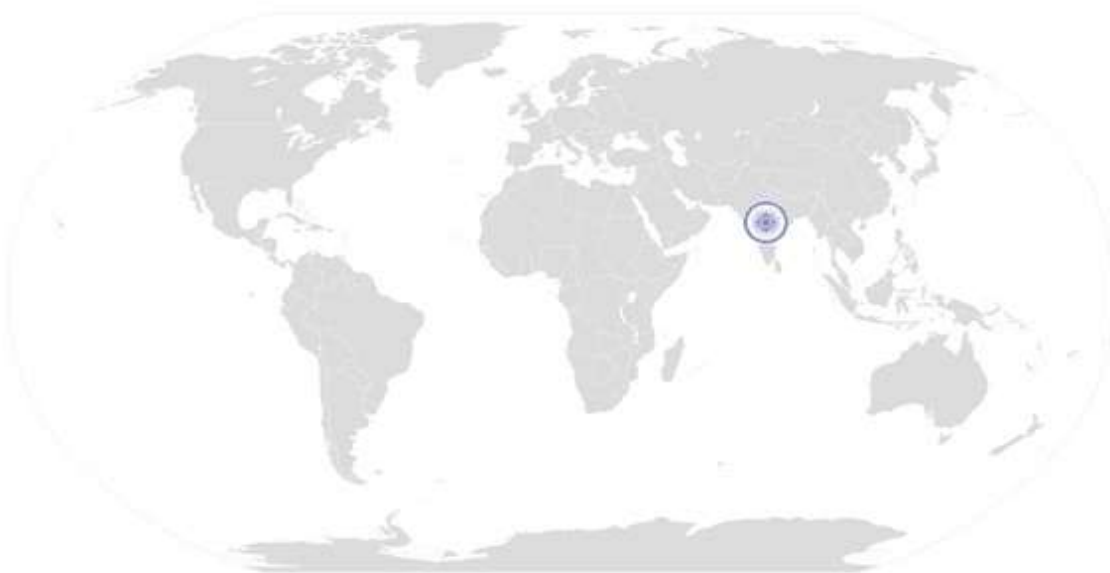
Personal Attributes: This job requires the individual to have good leadership qualities. He should have strong reasoning and analytical mind set. He should be able to delegate task appropriately considering the ability and availability of manpower in his team. He should be authoritative in delivering commands for work implementation. He should possess effective time management skill for getting the work done in a given time frame . He should keep the team members motivated for carrying out operations efficiently and learning new methods.

Job Details	Qualifications Pack Code	RSC/ Q 0213		
	Job Role	Moulding/Curing Supervisor		
	Credits(NSQF)	TBD	Version number	1.0
	Sector	Rubber Manufacturing	Drafted on	02/12/14
	Sub-sector	Tyre and Non- tyre	Last reviewed on	02/12/14
	Occupation	Moulding / Curing	Next review date	02/12/15
	NSQC Clearance on	20/07/2015		

Job Role	Moulding/Curing Supervisor
Role Description	A Moulding/Curing Supervisor is responsible to supervise the moulding and curing of rubber products as well as monitor the curing area with respect to machines, equipments, material and workers.
NSQF level	5
Minimum Educational Qualifications*	XII/Diploma/ITI/Graduate in Science
Maximum Educational Qualifications*	Post Graduate in Science
Training (Suggested but not mandatory)	Training on latest machines/equipments and human resource management
Minimum Job Entry Age	18 years
Experience	Worked for minimum 5 years as moulding/curing operator
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> RSC/ N 0233 (Supervise the preparatory activities for moulding/curing) RSC/N 0234 (Supervise the moulding/curing operations) RSC/N 0235 (Conduct post-moulding/curing supervisory operation) RSC/ N 5001 (To carry out housekeeping) RSC/ N 5002 (To carry out reporting and documentation) RSC/ N 5003 (To carry out quality checks) RSC/ N 5004 (To carry out problem identification and escalation) <p>Optional:</p> <ol style="list-style-type: none"> NA
Performance Criteria	As described in the relevant OS units

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
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.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an 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.
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 supervising the preparatory activities w.r.t. tools, equipments, machine, manpower, material and moulding/curing area.

Supervise the preparatory activities for moulding/curing

Unit Code	RSC / N 0233
Unit Title (Task)	Supervise the preparatory activities for moulding/curing
Description	Th unit is about supervising the preparatory activities w.r.t. tools, equipments, machine, manpower, material and moulding/curing area.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Ensure housekeeping and safety in the moulding/curing area • Ensure that tools, equipments and presses are well maintained and functioning properly • Ensure adequate trained manpower is available for undertaking moulding/curing operations • Ensure the availability of prepared product for curing • Ensure uninterrupted supply of green product for continuous curing/moulding process • Ensure the accurate parameter settings for curing presses and proper mold positions • Ensure proper molds are in place with required markings for moulding/curing
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Equipment readiness	<p>To be competent, the user/individual on the job must be able to</p> <p>PC1. Ensure that all the equipments and presses are operational</p> <p>PC2. Ensure all tools required for the moulding/curing operations are readily available</p> <p>PC3. Ensure moulds are available as per requirement</p> <p>PC4. Ensure that the identification on moulds (fixed or variable /sequential) are available</p> <p>PC5. Ensure regular checks are conducted for moulds and presses for accuracy and readiness for operation</p> <p>PC6. Identify defective equipment and take action as per SOP</p> <p>PC7. Arrange to provide hand tools and safety gears such as masks, gloves etc. for workers before starting the operation</p> <p>PC8. Ensure all the services such as steam - low pressure and high pressure , hot</p>

Supervise the preparatory activities for moulding/curing

	<p>water , cold water , air etc are available for curing operation</p> <p>PC9. Ensure if the temperature and pressure conditions of these services are within the specification and specified tolerances</p> <p>PC10. Comply with the maintenance schedule and ensure that maintenance programme of the presses are carried out on regular basis</p> <p>PC11. Ensure that each individual mold position, curing cycle specifications are in place</p> <p>PC12. Ensure that the operator checks temperature , pressure of the services to the individual presses and the mould locations</p> <p>PC13. Check if the curing record charts are in place</p> <p>PC14. Comply with Mould change schedules</p> <p>PC15. Ensure that mold warm up procedures are followed at the start ups as specified</p>
<p>Raw Material Readiness</p>	<p>PC1. Check the product received for moulding/curing is as per the scheduler</p> <p>PC2. Ensure the receiving of correct green product i.e. the material has lab release ID tags or correct code marking</p> <p>PC3. Inspect the material carefully to detect any defect and report the same to the concerned person before starting the operation and arrange for replacement of affected material in case required</p> <p>PC4. Ensure the services for moulding/curing are available with required specified temperature and pressure</p>
<p>Manpower Readiness</p>	<p>PC5. Ensure that the manpower required for achieving the moulding/curing schedule are available.</p> <p>PC6. Arrange for the substitute in case of absenteeism of any team member due to any injury, accident, leave etc.</p> <p>PC7. Delegate the task and inform the team members well in time about the schedule to be met in the given time frame</p> <p>PC8. Train the manpower for handling emergency situations</p> <p>PC9. Resolving issues (if any) among the team members before the commencement of operations</p>
<p>Health & Safety</p>	<p>PC1. Ensure that team members adhere to all safety norms (such as wearing protective gloves, masks, goggles and safety shoes).</p> <p>PC2. Avoid skin contact of hot product and other chemicals</p> <p>PC3. Precaution for holding hot product coming out of Press</p>

Supervise the preparatory activities for moulding/curing

	<p>PC4. Manage first aid, general medication etc. of the team members</p> <p>PC5. Arrange for hospitalization in case of accident</p> <p>PC6. Ensure no tampering of safety ropes/switches/extinguishers/alarms fitted on the machines or work area</p> <p>PC7. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department</p> <p>PC8. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.</p>
<p>Knowledge and Understanding (K)</p>	
<p>A. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Implications of poorly prepared tools, equipments, machines and manpower.</p> <p>KA2. Company's quality policies and acceptance standards for raw materials, processed and final product.</p> <p>KA3. Organisational Coding system of raw material, compounds and products</p> <p>KA4. Importance of identifying non-conforming material.</p> <p>KA5. Risk and impact of not following defined procedures/work instructions.</p> <p>KA6. Escalation matrix for reporting identified problems.</p> <p>KA7. Types of documentation in organization and importance of the same.</p> <p>KA8. Records to be maintained and the implications of their non-maintenance.</p> <p>KA9. Importance of housekeeping activities.</p> <p>KA10. Health, safety and environment guidelines, legislation and regulations as applicable.</p> <p>KA11. Personal and Personnel protection (which protective equipment to be used and how).</p> <p>KA12. Impact of poor practices on health, safety and environment.</p> <p>KA13. Potential hazards and actions to minimize them.</p> <p>KA14. The escalation matrix and procedures for reporting hazards.</p> <p>KA15. Impact of various practices on cost, quality, productivity, delivery and safety.</p> <p>KA16. Importance of optimal utilization of material, equipment and manpower.</p> <p>KA17. Importance of effective human resource management.</p> <p>KA18. Importance of achieving the set target in timely manner.</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Various components and operation of curing press</p> <p>KB2. Knowledge of services such as steam , air, hot water, Nitrogen etc used in curing</p> <p>KB3. Effect of inaccurate temperature and pressure of services used on curing</p> <p>KB4. Effect of improper moulding/curing on performance of product</p> <p>KB5. Product defects and the likely reasons for such defects</p> <p>KB6. Requirement for extending cures in case of delays or drop in temperature</p>

Supervise the preparatory activities for moulding/curing

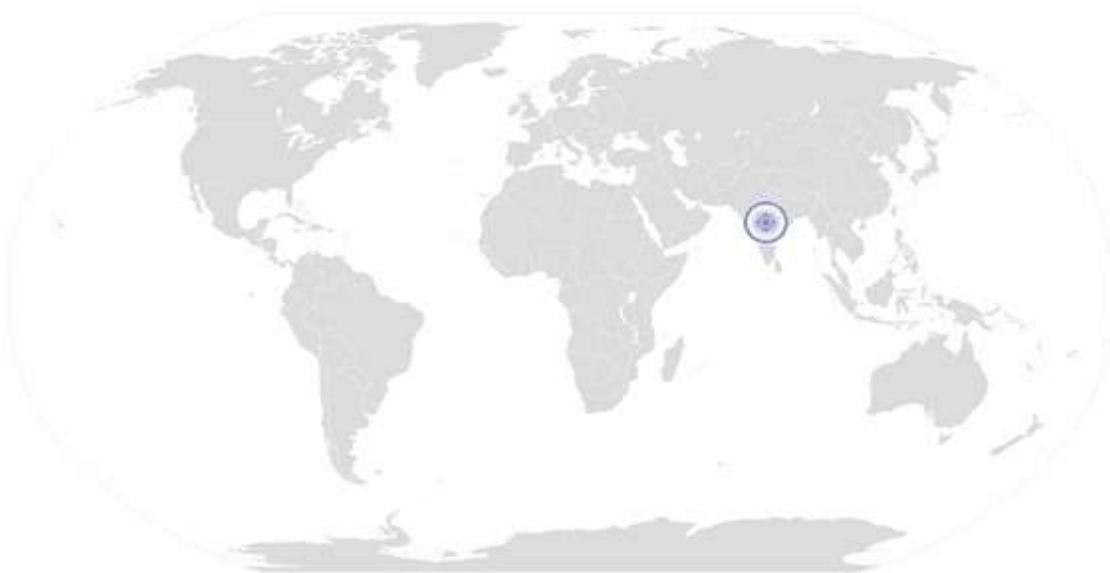
	<p>/pressure of services</p> <p>KB7. Importance of correct setting of press parameters</p> <p>KB8. Effect of wrong usage of mould and inappropriate parameters</p> <p>KB9. Working of latest digital equipments in use for setting different parameters</p> <p>KB10. Proper handling of rubber products</p> <p>KB11. Use of Computer/application software</p> <p>KB12. Effect of wrong markings on moulds</p> <p>KB13. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Express the ideas, lodge complaints and give suggestions through effective written communication.</p> <p>SA2. Fill up appropriate activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional and advanced mathematical and statistical operations and techniques such as estimation and approximation, for practical purposes</p> <p>SA5. Prepare and fill up schedules</p> <p>SA6. Maintain records in specified format in books and using computers</p>
	Reading and Understanding Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA7. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA8. Read images, graphs, diagrams</p> <p>SA9. Understand the various coding systems as per company norms</p> <p>SA10. Understand procedural guidelines</p>
	Oral Communication (Listening and Speaking skills)
<p>The user/individual on the job needs to know and understand how to:</p> <p>SA11. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA12. Respond appropriately to any queries</p> <p>SA13. Communicate with other job owners like lab chemist, maintenance manager etc.</p> <p>SA14. Communication with operators and labourers</p> <p>SA15. Instruct the team and encourage the team to adapt behavioral skills required to support the group activities.</p> <p>SA16. Proficient in the instructional language of the organisation</p>	

Supervise the preparatory activities for moulding/curing

	Integrity
	The user/individual on the job needs to know and understand how to: SA17. Practice honesty with respect to company property and time SA18. Communicate with people in a form and manner and using language that is open and respectful SA19. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust
	Motivation
	The user/individual on the job needs to know and understand how to: SA20. Take responsibility for completing one’s own work assignment and the work under supervision SA21. Take initiative to enhance/learn skills in ones’s area of work SA22. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one’s learning. SA23. Is open to new ways of doing things SA24. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.
	Reliability
	The user/individual on the job needs to know and understand how to: SA25. Avoid absenteeism SA26. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA27. Work in disciplined factory environment SA28. Be punctual
B. Professional Skills	Material, Equipment and Manpower Handling
	The user/individual on the job needs to know and understand how to: SB1. Handle tools and equipment and processing with different types of curing presses SB2. Handle moulds and rubber products SB3. Handling the coordination among team members SB4. Report team members issues to HR department that is beyond his control
	Subject Knowledge and Analytical Thinking

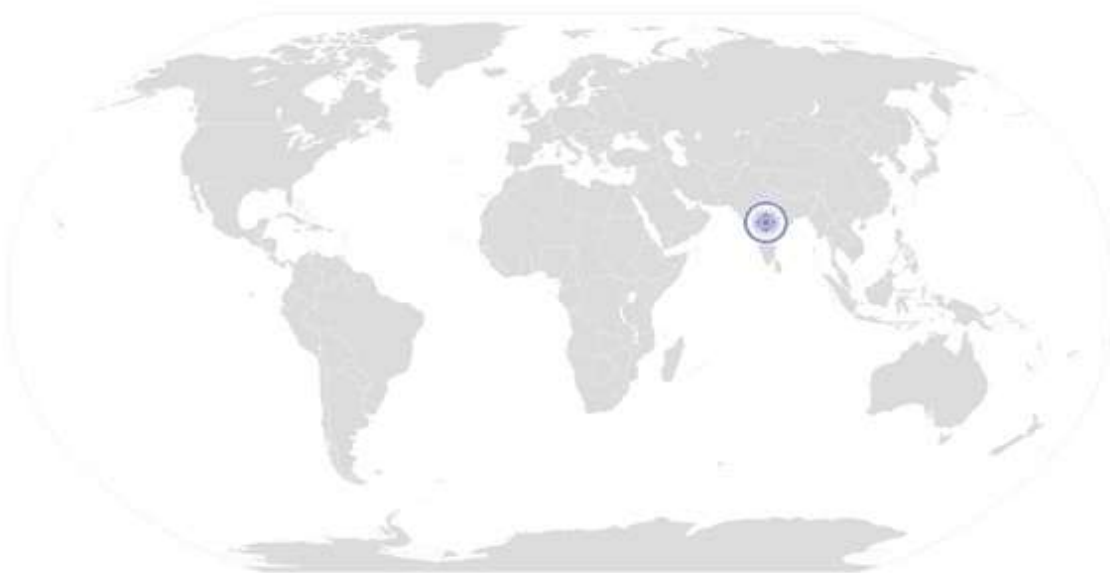
Supervise the preparatory activities for moulding/curing

	<p>The user/individual on the job needs to have:</p> <ul style="list-style-type: none">SB5. Thorough knowledge of physics, chemistry, mathematics and electronicsSB6. Knowledge of GMPs, SOPs and quality standards <p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none">SB7. Diagnose common problems in the material, machines and equipments based on visual inspection and quality checksSB8. Suggest improvements(if any) in process based on experienceSB9. Manage time and human resource effectivelySB10. Ability to provide proper training to team membersSB11. Handling Emergency situations effectively during operations
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NOS Version Control

NOS Code	RSC / N 0233		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	02/12/14
Industry Sub-sector	Tyre and NonTyre	Last reviewed on	02/12/14
Occupation	Moulding / Curing	Next review date	02/12/15



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National Occupational Standard



Overview

This unit is about supervising the moulding/curing operation.

Supervise the moulding/curing operations

National Occupational Standard

Unit Code	RSC / N 0234
Unit Title (Task)	Supervise the moulding/curing operations
Description	This unit is about supervising the moulding/curing operation.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Ensure housekeeping and safety in mixing area. • Ensure that all the moulding/curing operations are properly conducted with maximum efficiency , minimum change time, down time and waste.mmmmmmmmmmmmmmmmmmmmmmmmmmmmm
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Operation	<p>PC1. Ensure that the operator follows the moulding/curing process as per the authorized instructions issued by technical (manually/through automated operations)</p> <p>PC2. Ensure that the operator follow the sequence to make available different cured products as per the requirement</p> <p>PC3. Ensure all laid out procedures/guidelines are in compliance</p> <p>PC4. Ensure that the work is carried out as per the schedule</p> <p>PC5. Keep a close watch on timer setting , pressure drops and delays in loading /unloading and PCI application</p> <p>PC6. In case of pressure drops , follow the guidelines of technical on cure extension to save the product from getting scrapped or to avoid rubber getting stuck to mold</p> <p>PC7. Ensure that the mould placed is continuously heated and maintained at the proper specified temperature</p> <p>PC8. Keep a check on working of curing press and ensure that press is not left idle</p> <p>PC9. Maintain the continuity of the curing process, complete his/her shift and get the preparatory work done for next shift as well</p> <p>PC10. Check first moulded item for all markings to ensure that the correct product with NO mould related defects and correct markings are sent to the customer</p> <p>PC11. Monitor press opening and closing time</p> <p>PC12. Ensure no wastage of time during loading and unloading</p> <p>PC13. Ensure that post cure activities are carried out correctly and on time</p> <p>PC14. Check if the operator loads the product properly and follows the shaping cycles as per required specification</p> <p>PC15. Avoid contamination while carrying out the operation</p> <p>PC16. Check if operator marks down any visible defect once the product is released from molds/presses</p> <p>PC17. Ensure visual inspection of cured product for any defect such as cracks ,</p>

Supervise the moulding/curing operations

	lights, blisters and blows
Health & Safety	<p>PC9. Ensure that team members adhere to all safety norms (such as wearing protective gloves, masks, goggles and safety shoes).</p> <p>PC10. Avoid skin contact of hot product and other chemicals</p> <p>PC11. Precaution for holding hot product coming out of Press</p> <p>PC12. Arrange for hospitalization in case of accident</p> <p>PC13. Manage first aid, general medication etc. of the team members</p> <p>PC14. Avoid spillage and in case of spillage occur, follow safety measures as laid down by safety department</p> <p>PC15. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.</p>
Knowledge and Understanding (K)	
B. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Implications of improperly moulded/cured products.</p> <p>KA2. Optimal utilization of material, machines and manpower.</p> <p>KA3. Organisational Coding system of raw material, compounds and products</p> <p>KA4. Different quality management systems</p> <p>KA5. Importance of identifying non-conforming materials.</p> <p>KA6. Risk and impact of not following defined procedures/work instructions.</p> <p>KA7. Escalation matrix for reporting identified problems.</p> <p>KA8. Types of documentation in organization and importance of the same.</p> <p>KA9. Records to be maintained and the implications of their non-maintenance.</p> <p>KA10. Importance of housekeeping activities.</p> <p>KA11. Health, safety and environment guidelines, legislation and regulations as applicable.</p> <p>KA12. Personal and Personnel protection (which protective equipment to be used and how).</p> <p>KA13. Impact of poor practices on health, safety and environment.</p> <p>KA14. Potential hazards and actions to minimize them.</p> <p>KA15. The escalation matrix and procedures for reporting hazards.</p> <p>KA16. Impact of various practices on cost, quality, productivity, delivery and safety.</p> <p>KA17. Importance of optimal utilization of material, equipment and manpower.</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Importance of following SOP for moulding and curing</p>

Supervise the moulding/curing operations

	<p>KB2. Moulding and curing operations and equipments in use.</p> <p>KB3. Working of continuous and batch operational curing chamber</p> <p>KB4. Visual examination for under cured as well over cured products</p> <p>KB5. Knowledge of various heating mediums for curing chambers viz steam heating, Thermic fluid heating, Infra red heating, LNG heating and Electric heating</p> <p>KB6. Importance of inspecting first cured product out of each mould</p> <p>KB7. Knowledge of various types of heating oven viz continuous and batch type oven.</p> <p>KB8. Heat calculations</p> <p>KB9. Air trapping and humidity controls</p> <p>KB10. Implications of heat expansion and contraction</p> <p>KB11. Heat values of various heating mediums</p> <p>KB12. Usage of utilities needed for heating</p> <p>KB13. Volume of air required to heat up the chambers for proper curing and drying</p> <p>KB14. Control on over curing and under curing of the product</p> <p>KB15. Control of blisters and moisture to avoid degradation of the products.</p> <p>KB16. Dimensional control and shrinkage defects of the products</p> <p>KB17. Cleanliness and safety requirements for moulding and curing operation.</p> <p>KB18. Effect of not following the sequence during curing operation on product properties.</p> <p>KB19. Effect of improper moulding/curing operation on the properties of product.</p> <p>KB20. The process and importance of quality checks.</p> <p>KB21. Types of defects leading to rejections and their indicators, reasons and possible solutions.</p> <p>KB22. Potential problems in curing chamber, ovens and drier operation</p> <p>KB23. Importance of meeting schedules for moulding/curing operation</p> <p>KB24. Implications of delay in operations</p> <p>KB25. Implications of not meeting the quality specifications</p> <p>KB26. Proper monitoring of manpower and machines</p> <p>KB27. Implications of non-confirming product preparation</p> <p>KB28. Importance of maintaining efficiency and attain scheduled target shift wise</p> <p>KB29. Implications of not meeting the requirement of the other departments in timely manner</p>
Skills (S)	
C. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Express the ideas, lodge complaints and give suggestions through effective written communication.</p> <p>SA2. Fill up appropriate activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p>

Supervise the moulding/curing operations

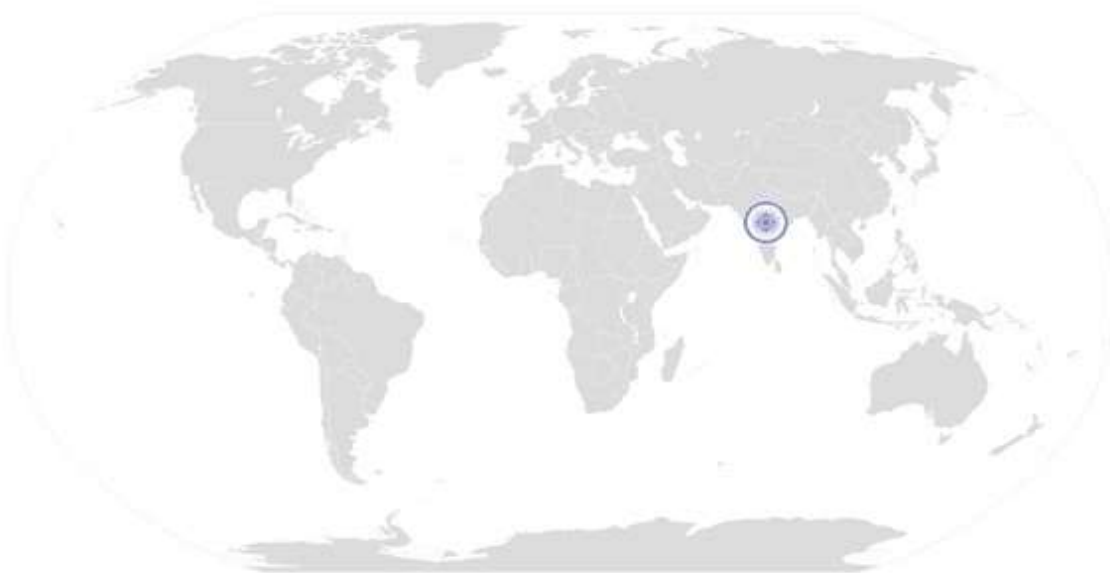
	SA4. Perform functional and advanced mathematical and statistical operations and techniques such as estimation and approximation, for practical purposes
	SA5. Prepare and fill up schedules
	SA6. Write performance reports
	SA7. Maintain records in specified format in books and using computers
	Reading and Understanding Skills
	The user/individual on the job needs to know and understand how to:
	SB1. Read and understand manuals, health and safety instructions, memos, reports, job cards etc
	SB2. Read images, graphs, diagrams
	SB3. Understand the various coding systems as per company norms
	SB4. Understand procedural guidelines
Oral Communication (Listening and Speaking skills)	
The user/individual on the job needs to know and understand how to:	
SB1. Express statements, opinions or information clearly so that others can hear and understand	
SB2. Respond appropriately to any queries	
SB3. Communicate with all team members	
SB4. Communicate with other job owners like lab chemist, maintenance manager etc.	
SB5. Instruct the team and encourage the team to adapt behavioral skills required to support the group activities.	
Integrity	
The user/individual on the job needs to know and understand how to:	
SA29. Practice honesty with respect to company property and time	
SA30. Communicate with people in a form and manner and using language that is open and respectful	
SA31. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust	
Motivation	
The user/individual on the job needs to know and understand how to:	
SA32. Take responsibility for completing one's own work assignment and the work under supervision	
SA33. Take initiative to enhance/learn skills in one's area of work	
SA34. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning.	
SA35. Is open to new ways of doing things	
SA36. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.	

Supervise the moulding/curing operations

	<p>Reliability</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA37. Avoid absenteeism</p> <p>SA38. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA39. Work in disciplined factory environment</p> <p>SA40. Be punctual</p>
<p>D. Professional Skills</p>	<p>Material, Equipment and Manpower Handling</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Handle processing with curing press</p> <p>SB2. Handle cured products</p> <p>SB3. Handle moulds and ovens</p> <p>SB4. Perform computer operations</p> <p>SB5. Handling the coordination among team members</p> <p>SB6. Report team members issues to HR department that is beyond his control</p>
	<p>Subject Knowledge and Analytical Thinking</p>
	<p>The user/individual on the job needs to have:</p> <p>SB12. Thorough knowledge of physics, chemistry, mathematics and electronics</p> <p>SB13. Knowledge of GMPs, SOPs and quality standards</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB14. Diagnose common problems in the moulding/curing operation</p> <p>SB15. Suggest improvements(if any) in process based on experience</p> <p>SB16. Manage time and human resource effectively</p> <p>SB17. Ability to train the team members and develop skill of multi task among the team members; so that the schedule is met in case of any injury, accident, absenteeism etc.</p> <p>SB18. Handling emergency situations effectively</p> <p>SB19. Optimal utilization of material and minimal wastage</p> <p>SB20. Take corrective action for under cured and over cured products</p>

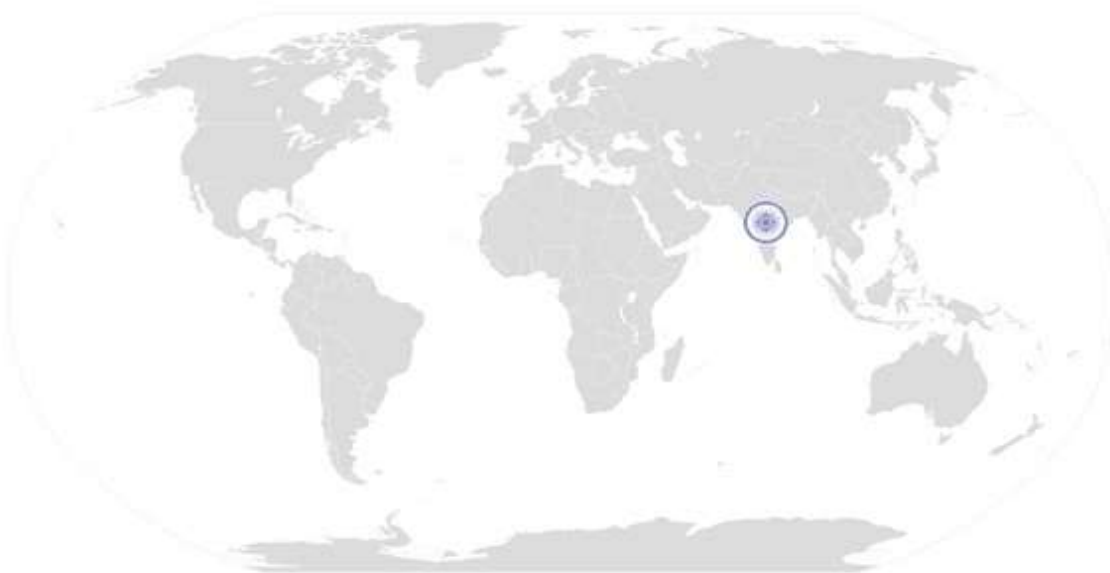
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Industry Sub-sector	Tyre and NonTyre	Last reviewed on	02/12/14
Occupation	Moulding / Curing	Next review date	02/12/15



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National Occupational Standard



Overview

This unit is about supervising operations which are carried out after the moulding/curing operation.

Conduct post-moulding/curing supervisory operations

National Occupational Standard	Unit Code	RSC / N 0235
	Unit Title (Task)	Conduct post- moulding/curing supervisory operations
	Description	This unit is about supervising operations which are carried out after the moulding/curing operations.
	Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Ensure housekeeping and safety in moulding/curing area • Ensure code marking for proper identification • Arrange to send sample to lab for testing if required as per SOP • Arrange to send the cured product for inspection • Maintain Record
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Batch Marking	PC1. Ensure identification and traceability by marking/coding for the cured product as per the instructions laid down by the technical
	Sampling	PC2. Ensure to send sample of the cured product in the specified sample size and method as directed by the technical department
		<p>PC1. Get the the prepared product stored at designated place with proper ID tags and hold until release tags in the allotted storage area .</p> <p>PC2. Ensure the storage is done to facilitate the FIFO</p> <p>PC3. Arrange to send the cured product for inspection</p> <p>PC4. Manage to provide maintenance time for any repair and scheduled long maintenance of curing press and moulds</p> <p>PC5. Arrange to place DO NOT USE tag on product having any defects; either hold it for any other use, reschedule its preparation</p> <p>PC6. Arrange to reschedule themoulding/curing of the affected products</p> <p>PC7. Send the defective/rejected material to hold area and keep the storage space free for OK material</p>
	Record Maintenance and Reporting	<p>PC8. Update the production sheet with the details of prepared material and record down time with details on reasons, time from to end and mention action taken to solve the down time</p> <p>PC9. Paper /computer documents must be complete and traceable in all respect</p> <p>PC10. Records of the team members for work done, availability in shift, working</p>

Conduct post-moulding/curing supervisory operations

	hours etc
Material Disposal	PC11. Ensure to get the waste material disposed off as per waste disposal/work away procedures laid down by the technical department
Health & Safety	<p>PC1. Ensure that team members adhere to all safety norms (such as wearing protective gloves, masks, goggles and safety shoes).</p> <p>PC2. Arrange for hospitalization in case of accident</p> <p>PC3. Manage first aid, general medication etc. of the team members</p> <p>PC4. Avoid spillage and in case of spillage occur, follow safety measures as laid down by safety department</p> <p>PC5. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards</p>
Knowledge and Understanding (K)	
C. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Implications of poorly prepared product</p> <p>KA2. Significance of batch marking</p> <p>KA3. Importance of record maintenance.</p> <p>KA4. Organisational Coding system of raw material, compounds and products</p> <p>KA5. Importance of identifying non-conforming material.</p> <p>KA6. Risk and impact of not following defined procedures/work instructions.</p> <p>KA7. Escalation matrix for reporting identified problems.</p> <p>KA8. Types of documentation in organization and importance of the same.</p> <p>KA9. Records to be maintained and the implications of their non-maintenance.</p> <p>KA10. Importance of housekeeping activities.</p> <p>KA11. Health, safety and environment guidelines, legislation and regulations as applicable.</p> <p>KA12. Personal and Personnel protection (which protective equipment to be used and how).</p> <p>KA13. Impact of poor practices on health, safety and environment.</p> <p>KA14. Potential hazards and actions to minimize them.</p> <p>KA15. The escalation matrix and procedures for reporting hazards.</p> <p>KA16. Importance of FIFO</p> <p>KA17. Impact of various practices on cost, quality, productivity, delivery and safety.</p> <p>KA18. Importance of optimal utilization of material, equipment and manpower.</p>

Conduct post-moulding/curing supervisory operations

<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Maintenance of curing presses and moulds KB2. Importance of inspection KB3. Proper handling of defective products KB4. Importance of record maintenance KB5. Importance of timely delivery of prepared product KB6. Effective communication at different levels KB7. Knowledge of traceability KB8. Record track of team members KB9. Process and importance of quality checks. KB10. Batch marking techniques. KB11. Implications of incorrect batch marking. KB12. Implications of inappropriate waste disposal. KB13. Types of defects leading to rejections and their indicators, reasons and possible solutions. KB14. Coding systems for identification and traceability. KB15. Knowledge of the storage life of prepared product, ambient temperature and its effect on final product. KB16. Removal of waste material and downgraded material from each areas operations to concerned places</p>
<p>Skills (S)</p>	
<p>E. Core Skills/ Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Express the ideas, lodge complaints and give suggestions through effective written communication. SA2. Fill up appropriate activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional and advanced mathematical and statistical operations and techniques such as estimation and approximation, for practical purposes SA5. Prepare and fill up schedules SA6. Maintain records in specified format in books and using computers</p> <p>Reading and Understanding Skills</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA2. Read images, graphs, diagrams SA3. Understand the various coding systems as per company norms SA4. Understand procedural guidelines SA5. Interpret and understand lab testing reports</p>

Conduct post-moulding/curing supervisory operations

	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA1. Express statements, opinions or information clearly so that others can hear and understand SA2. Respond appropriately to any queries SA3. Communicate with team members and other job owners SA4. Instruct the team and encourage the team to adapt behavioral skills required to support the group activities.
	Integrity
	The user/individual on the job needs to know and understand how to: SA1. Practice honesty with respect to company property and time SA2. Communicate with people in a form and manner and using language that is open and respectful SA3. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust
	Motivation
	The user/individual on the job needs to know and understand how to: SA1. Take responsibility for completing one's own work assignment and the work under supervision SA2. Take initiative to enhance/learn skills in one's area of work SA3. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA4. Is open to new ways of doing things SA5. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.
	Reliability
The user/individual on the job needs to know and understand how to: SA1. Avoid absenteeism SA2. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA3. Work in disciplined factory environment SA4. Be punctual	
F. Professional Skills	Material, Equipment and Manpower Handling
	The user/individual on the job needs to know and understand how to: SB1. Handle test reports SB2. Handle record books SB3. Handle cured products

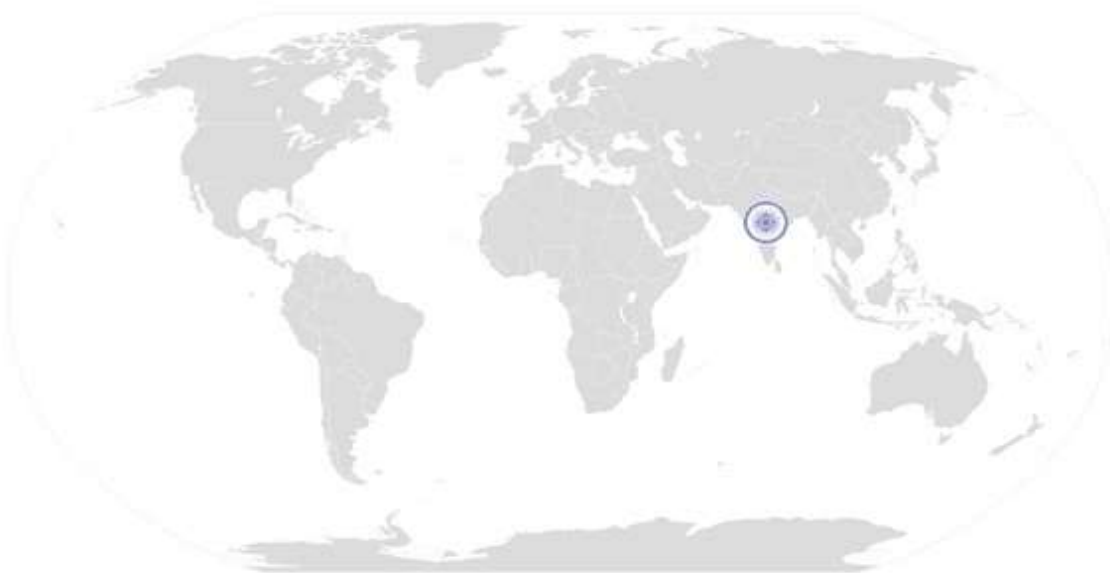
Conduct post-moulding/curing supervisory operations

	<p>SB4. Perform computer operations</p> <p>SB5. Track efficiency and waste generation/reduction</p> <p>SB6. Managing pressure and adhering to strict guidelines/procedures for completing extrusion operation in timely manner</p> <p>SB7. Handling the coordination among team members</p> <p>SB8. Report team members issues to HR department that is beyond his control</p>
	<p>Subject Knowledge and Analytical Thinking</p>
	<p>The user/individual on the job needs to have:</p> <p>SB1. Thorough knowledge of physics, chemistry, mathematics and electronics</p> <p>SB2. Knowledge of GMPs, SOPs and quality standards</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. Diagnose common problems in the moulded/cured products based on visual inspection and quality checks</p> <p>SB4. Suggest improvements(if any) in process based on experience</p> <p>SB5. Manage time and human resource effectively</p> <p>SB6. Ability to provide training to team members</p> <p>SB7. Attaining schedule targets in given timelines</p>



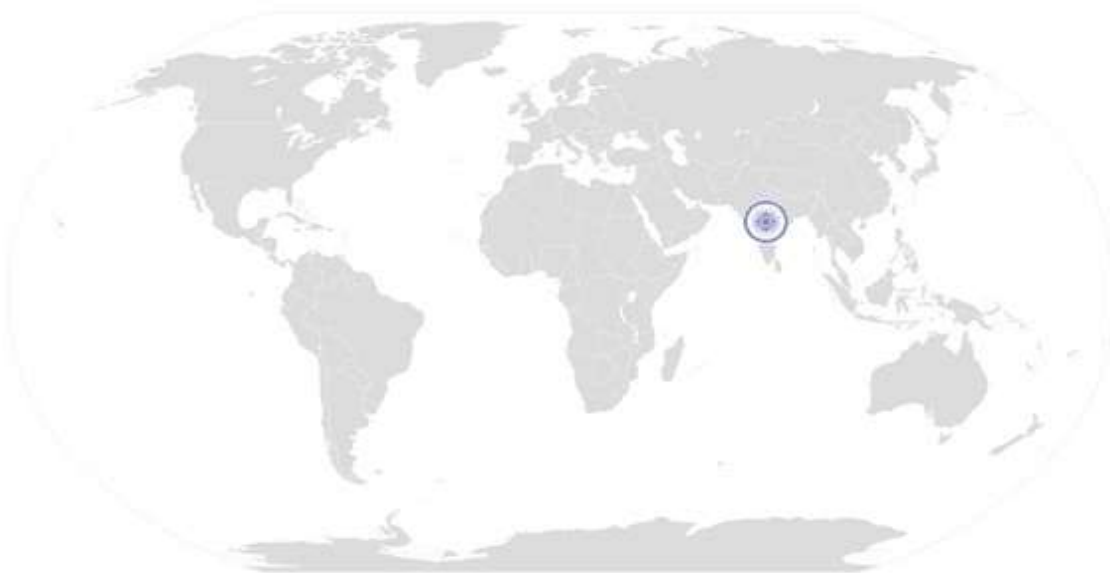
NOS Version Control

NOS Code	RSC / N 0235		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	02/12/14
Industry Sub-sector	Tyre and NonTyre	Last reviewed on	02/12/14
Occupation	Moulding / Curing	Next review date	02/12/15



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National Occupational Standard



Overview

This unit is about carrying out housekeeping

RSC / N 5001
Carry Out Housekeeping Activities

National Occupational Standard

Unit Code	RSC / N 5001
Unit Title (Task)	To carry out housekeeping
Description	This unit is about carrying out housekeeping activities
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Preparing for housekeeping activities • Carry out housekeeping activities • Post housekeeping activities
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Pre housekeeping activities	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Inspect the area while taking into account various surfaces</p> <p>PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain</p> <p>PC3. Ensure that the cleaning equipment is in proper working condition</p> <p>PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person</p> <p>PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces</p> <p>PC6. Inform the affected people about the cleaning activity</p> <p>PC7. Display the appropriate signage for the work being conducted</p> <p>PC8. Ensure that there is adequate ventilation for the work being carried out</p> <p>PC9. Wear the personal protective equipment required for the cleaning method and materials being used</p>
Operations	<p>PC10. Use the correct cleaning method for the work area, type of soiling and surface</p> <p>PC11. Carry out cleaning activity without disturbing others</p> <p>PC12. Deal with accidental damage, if any, caused while carrying out the work</p> <p>PC13. Report to the appropriate person any difficulties in carrying out your work</p> <p>PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill</p>
Post housekeeping activities	<p>PC15. Ensure that there is no oily substance on the floor to avoid slippage</p> <p>PC16. Ensure that no scrap material is lying around</p> <p>PC17. Maintain and store housekeeping equipment and supplies</p>

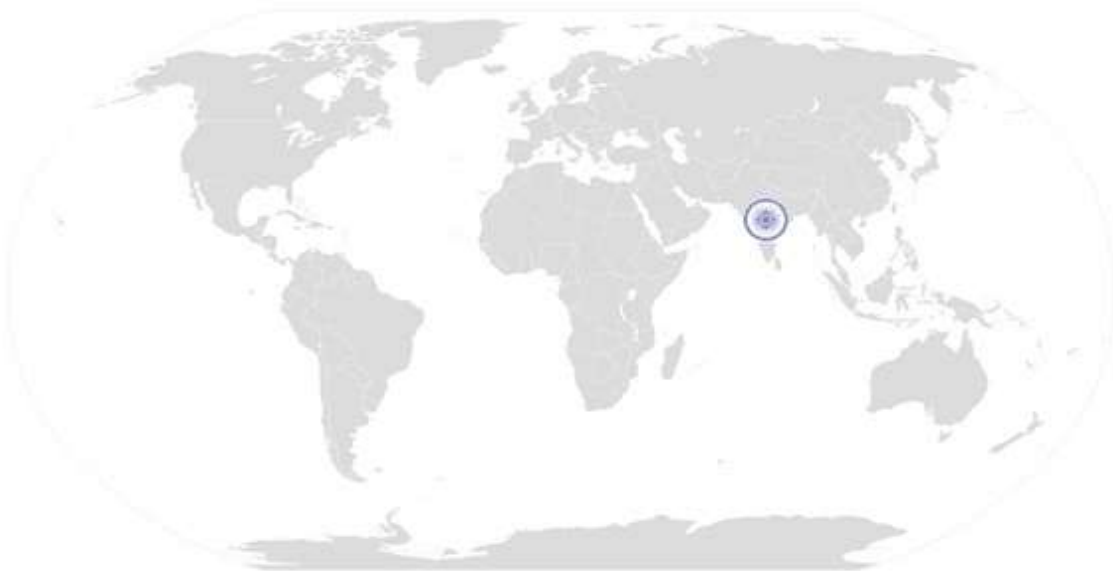
Carry Out Housekeeping Activities

	<p>PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process</p> <p>PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements</p> <p>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</p> <p>PC21. Dispose the waste garnered from the activity in an appropriate manner</p> <p>PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly</p>
<p>General</p>	<p>PC23. Maintain schedules and records for housekeeping duty</p> <p>PC24. Replenish any necessary supplies or consumables</p>
<p>Knowledge and Understanding (K)</p>	
<p>A. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The levels of hygiene required by workplace and why it is important to maintain them during your work</p> <p>KB2. How to inspect a work area to decide what cleaning it needs</p> <p>KB3. Methods and materials that used for cleaning variety of surfaces</p> <p>KB4. The types of cleansing agents that are not to be mixed together</p> <p>KB5. The correct method for cleaning equipment and/or machinery used during your work</p> <p>KB6. The importance of personal protective equipment</p> <p>KB7. Appropriate personal protective equipment for the work area, cleaning equipment, tools, materials and chemicals used</p> <p>KB8. The correct sequence for cleaning the work area</p> <p>KB9. The time taken by the treatment to work</p> <p>KB10. The importance of following manufacturer's instructions on cleaning agents</p> <p>KB11. The most appropriate place to carry out test cleans and why this should be done before applying treatments</p> <p>KB12. The importance of applying treatments evenly and the effect of not doing this</p> <p>KB13. Process of cleaning the surfaces without causing injury or damage</p> <p>KB14. The method to check the treated surface and equipment on completion of cleaning</p> <p>KB15. Procedures for reporting any unidentified soiling</p> <p>KB16. Procedures for disposing off waste</p> <p>KB17. Procedures for disposing off or storing personal protective equipment</p> <p>KB18. Escalation procedures for soils or stains that could not be removed</p>

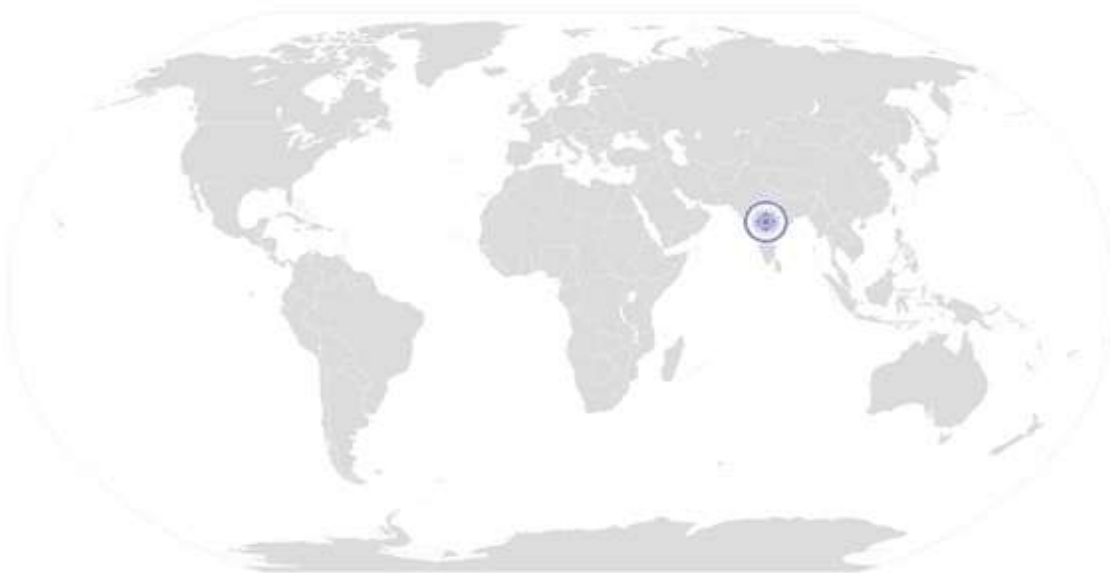
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format 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
	The user/individual on the job needs to know and understand how to: 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 (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)
	Integrity
	The user/individual on the job needs to know and understand how to: 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
	The user/individual on the job needs to know and understand how to: SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in one'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.

Carry Out Housekeeping Activities

	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
	The user/individual on the job needs to know and understand how to:
	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

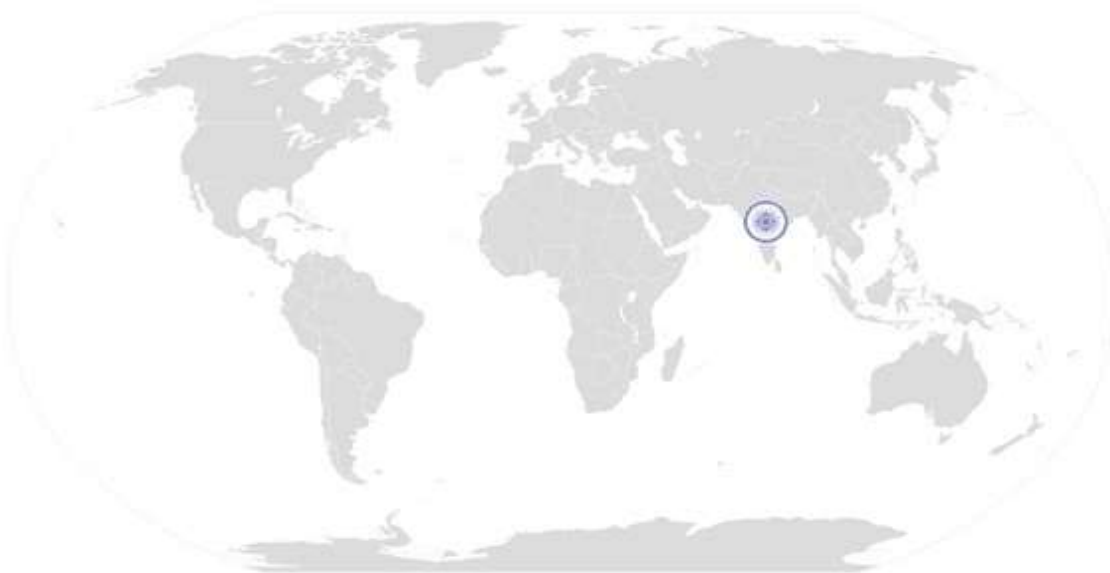


NOS Code	RSC / N 5001		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/14
Industry Sub-sector	Tyre and NonTyre	Last reviewed on	14/06/14
Occupation	Moulding/Curing	Next review date	14/06/15



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National Occupational Standard



Overview

This unit is about reporting and documentation

National Occupational Standard	Unit Code	RSC / N 5002
	Unit Title (Task)	To carry out reporting and documentation
	Description	This unit is about carrying out reporting and documentation
	Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Reporting of data/problem/incidents etc • Documentation • Information Security
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Reporting	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Report data/problems/incidents as applicable in a timely manner</p> <p>PC2. Report to the appropriate authority as laid down by the company</p> <p>PC3. Follow reporting procedures as prescribed by the company</p>
	Recording and Documentation	<p>PC4. Identify documentation to be completed relating to one's role</p> <p>PC5. Record details accurately an appropriate format</p> <p>PC6. Complete all documentation within stipulated time according to company procedure</p> <p>PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly</p> <p>PC8. Make sure documents are available to all appropriate authorities to inspect</p>
	Information Security	<p>PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures</p> <p>PC10. Inform the appropriate authority of requests for information received</p>
	Knowledge and Understanding (K)	
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Different methods of recording information</p> <p>KB2. Various documents that need to be maintained</p> <p>KB3. Company procedure for filling/maintaining up the documents</p> <p>KB4. Procedures for reporting to the appropriate authority</p> <p>KB5. Procedures for recording damage, breakages etc</p> <p>KB6. Reporting incidents where standard operating procedures are not followed</p> <p>KB7. The importance of complete and accurate documentation</p> <p>KB8. How to maintain complete documentation accurately and within agreed timescales</p> <p>KB9. The importance of ensuring that the documents are correct</p>	

To Carry Out Reporting And Documentation

	<p>KB10. The actions to be taken if the documents are not correct</p> <p>KB11. The importance of maintaining the security and confidentiality of recorded information</p> <p>KB12. Procedures to maintain confidentiality of information</p> <p>KB13. The appropriate method for responding to requests for information</p> <p>KB14. The reporting procedures to followed before disclosing information to any outside party</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p>
	Reading and Understanding Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>
	Integrity
<p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Practice honesty with respect to company property and time</p> <p>SA14. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA15. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust</p>	

To Carry Out Reporting And Documentation

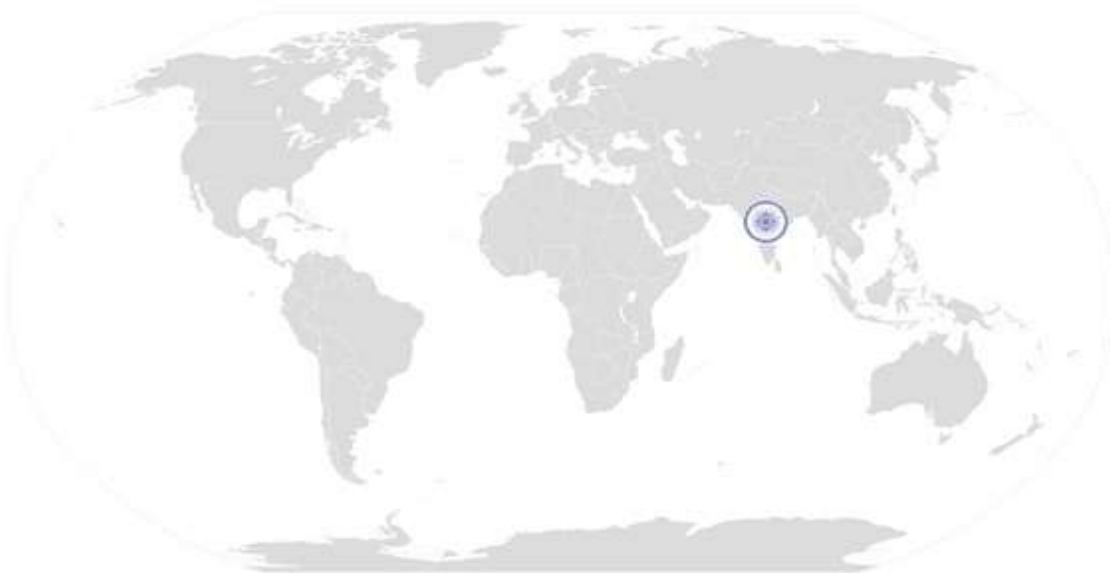
	Motivation
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA16. Take responsibility for completing one’s own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in ones’s area of work</p> <p>SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one’s learning.</p> <p>SA19. Is open to new ways of doing things</p> <p>SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	Reliability
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA21. Avoid absenteeism</p> <p>SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA23. Work in disciplined factory environment</p> <p>SA24. Be punctual</p>



NOS Version Control

To Carry Out Reporting And Documentation

NOS Code	RSC / N 5002		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/14
Industry Sub-sector	Tyre and NonTyre	Last reviewed on	14/06/14
Occupation	Moulding/Curing	Next review date	14/06/15


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National Occupational Standard



Overview

This unit is about carrying out quality checks

To Carry Out Quality Checks

Unit Code	RSC / N 5003
Unit Title (Task)	To carry out quality checks
Description	This unit is about carrying out quality control activities
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Carrying out quality checks to identify problems • Take corrective actions • Reporting the results
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Inspection	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Ensure that total range of checks are regularly and consistently performed</p> <p>PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required</p>
Analysis	<p>PC3. Identify non-conformities to quality assurance standards</p> <p>PC4. Identify potential causes of non-conformities to quality assurance standards</p> <p>PC5. Identify impact on final product due to non-conformance to company standards</p> <p>PC6. Evaluating the need for action to ensure that problems do not recur</p> <p>PC7. Suggest corrective action to address problem</p> <p>PC8. Review effectiveness of corrective action</p>
Reporting	<p>PC9. Interpret the results of the quality check correctly</p> <p>PC10. Take up results of the findings with QC in charge/appropriate authority.</p> <p>PC11. Take up the results of the findings within stipulated time</p> <p>PC12. Record of results of action taken</p> <p>PC13. Record adjustments not covered by established procedures for future reference</p> <p>PC14. Review effectiveness of action taken</p> <p>PC15. Follow reporting procedures where the cause of defect cannot be identified</p>
Knowledge and Understanding (K)	
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The importance of quality control procedures</p> <p>KB2. Relevance and importance of activities and how they contribute to the</p>

To Carry Out Quality Checks

	<p>achievement of the quality objectives,</p> <p>KB3. Proper procedure for selecting the material/product and performing quality checks without affecting the material</p> <p>KB4. Availability of work instructions, as necessary,</p> <p>KB5. Characteristics of the product/material</p> <p>KB6. Use of suitable equipment</p> <p>KB7. Availability and use of monitoring and measuring devices,</p> <p>KB8. Requirements of records</p> <p>KB9. Importance of maintaining accurate up-to-date records</p> <p>KB10. The need to report within the stipulated time</p> <p>KB11. Implications of inaccurate measuring and testing instruments and equipment</p> <p>KB12. The cost of non-conformance to quality standards</p> <p>KB13. Implications (impact on internal/external customers) of defective products, materials or components</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p>
	Reading and Understanding Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	Oral Communication (Listening and Speaking skills)
<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>	

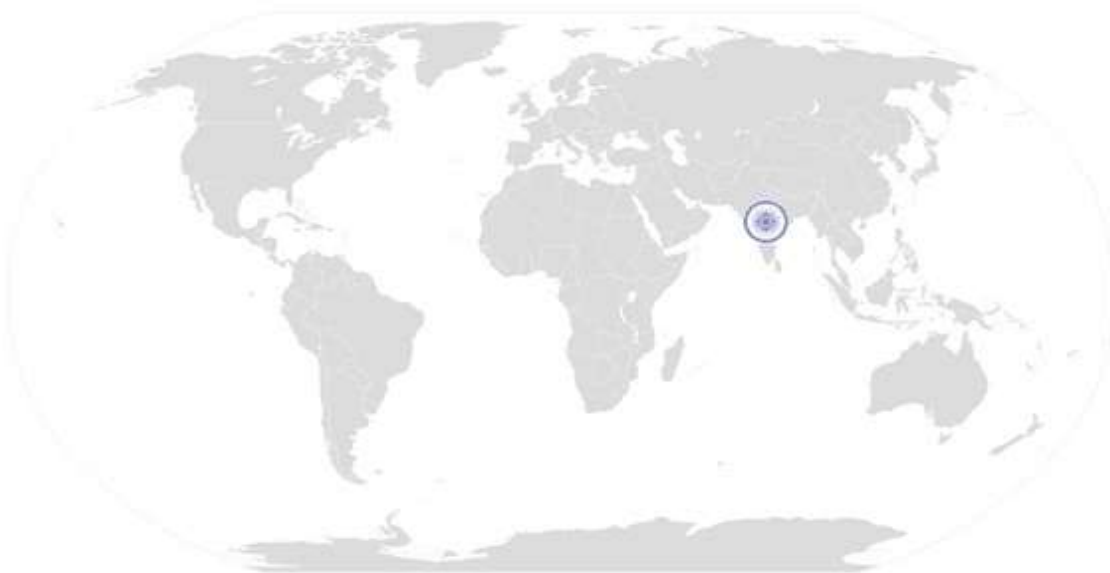
To Carry Out Quality Checks

	Integrity
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Practice honesty with respect to company property and time</p> <p>SA14. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p>
	Motivation
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA16. Take responsibility for completing one’s own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in ones’s area of work</p> <p>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.</p> <p>SA19. Is open to new ways of doing things</p> <p>SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	Reliability
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA21. Avoid absenteeism</p> <p>SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA23. Work in disciplined factory environment</p> <p>SA24. Be punctual</p>

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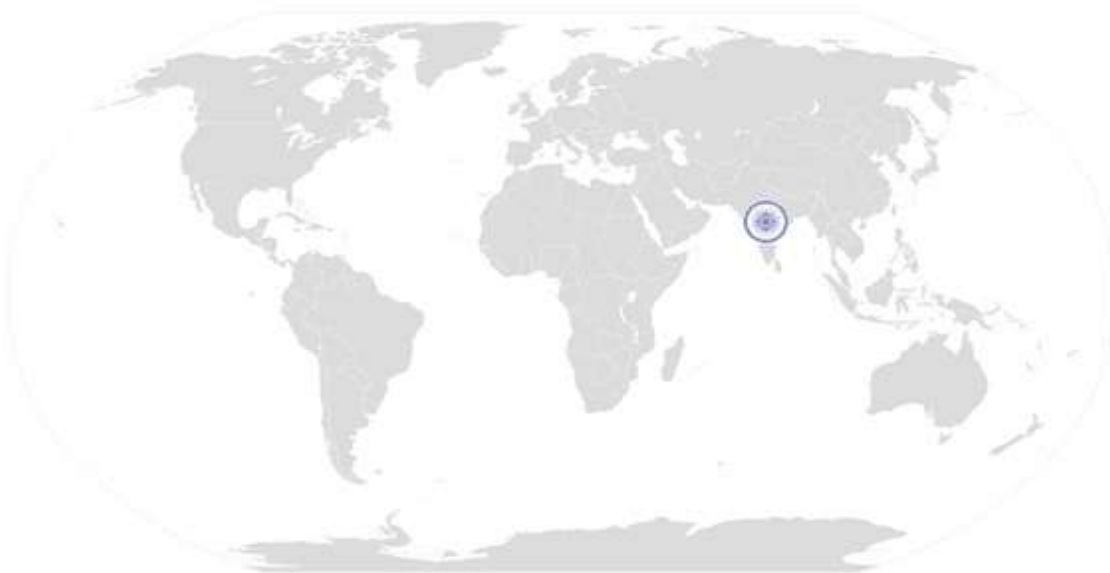
To Carry Out Quality Checks

NOS Code	RSC / N 5003		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/14
Industry Sub-sector	Tyre and NonTyre	Last reviewed on	14/06/14
Occupation	Moulding/Curing	Next review date	14/06/15



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National Occupational Standard



Overview

This unit is about problem identification and escalation

To Carry Out Problem Identification And Escalation

Unit Code	RSC / N 5004
Unit Title (Task)	To carry out problem identification and escalation
Description	This unit is about problem identification and escalation
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Identify problems across: <ul style="list-style-type: none"> - Raw materials - Compounds - Product - Equipment - Others • Identify solutions to problems • Take corrective action • Escalation of unresolved identified problems
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Problem Identification	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Identify defects/indicators of problems</p> <p>PC2. Identify any wrong practices that may lead to problems</p> <p>PC3. Identify practices that may impact the final product quality</p> <p>PC4. Identify if the problem has occurred before</p> <p>PC5. Identify other operations that might be impacted by the problem</p> <p>PC6. Ensure that no delays are caused as a result of failure to escalate problems</p>
Necessary Action	<p>PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)</p> <p>PC8. Consider possible reasons for identification of problems</p> <p>PC9. Consider applicable corrections and formulate corrective action</p> <p>PC10. Formulate action in a timely manner</p> <p>PC11. Communicate problem/remedial action to appropriate parties</p> <p>PC12. Take corrective action in a timely manner</p> <p>PC13. Take corrective action for problems identified according to the company procedures</p> <p>PC14. Report/document problem and corrective action in an appropriate manner</p> <p>PC15. Monitor corrective action</p> <p>PC16. Evaluate implementation of corrective action taken to determine if the</p>

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	<p>problem has been resolved</p> <p>PC17. Ensure that corrective action selected is viable and practical</p> <p>PC18. Ensure that correct solution is identified to an identified problem</p> <p>PC19. Take corrective action for problems identified according to the company procedures</p> <p>PC20. Ensure that no delays are caused as a result of failure to take necessary action</p>
<p>Problem Escalation</p>	<p>PC21. Escalate problem as per laid down escalation matrix</p> <p>PC22. Escalate the problem within stipulated time</p> <p>PC23. Escalate the problem in an appropriate manner</p> <p>PC24. Ensure that no delays are caused as a result of failure to escalate problems</p>
<p>Knowledge and Understanding (K)</p>	
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Indicators of problems</p> <p>KB2. The working of the equipment and accessories(if applicable)</p> <p>KB3. The impact of operations on the user and equipment(if applicable)</p> <p>KB4. The impact of operations on the final product (if applicable)</p> <p>KB5. The effect of not rectifying the problems identified</p> <p>KB6. The reason for the occurrence of previous problems</p> <p>KB7. Measures and steps that have been taken to address the previous problems</p> <p>KB8. Possible solutions for various problems</p> <p>KB9. The correct method for carrying out corrective actions outlined for each problem</p> <p>KB10. The impact of not carrying out the corrective actions</p> <p>KB11. The documentation procedure for recording such problems, as per company norms</p> <p>KB12. The escalation matrix for reporting problems</p> <p>KB13. Escalation matrix for reporting unresolved problems</p> <p>KB14. The time frame within which in which each problem needs to be escalated</p> <p>KB15. Manner in which each problem needs to be escalated</p>
<p>Skills (S)</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as</p>

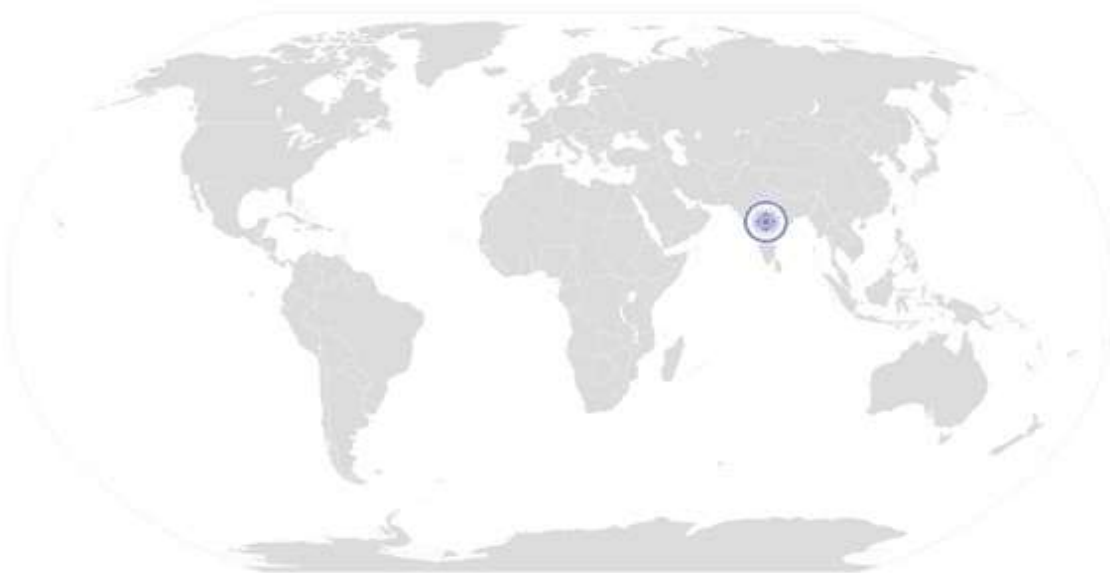
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	estimation and approximation, for practical purposes
	Reading and Understanding Skills
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)
	Integrity
	The user/individual on the job needs to know and understand how to: 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
	The user/individual on the job needs to know and understand how to: SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in one'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
	The user/individual on the job needs to know and understand how to: 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

RSC / N 5004
To Carry Out Problem Identification And Escalation

NOS Version Control

NOS Code	RSC / N 5004		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/14
Industry Sub-sector	Tyre and NonTyre	Last reviewed on	14/06/14
Occupation	Moulding/Curing	Next review date	14/06/15


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CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Moulding/Curing Supervisor
Qualification Pack RSC/ Q 0213
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. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

			Marks Allocation		
NOS	Elements	Performance Criteria	Total	Theory	Practical
RSC / N 0233 Supervise the preparatory activities for moulding/curing	Equipment readiness	PC1. Ensure that all the equipments and presses are operational	1	0	1
		PC2. Ensure all tools required for the moulding/curing operations are readily available	1	0	1
		PC3. Ensure moulds are available as per requirement	2	0	2
		PC4. Ensure that the identification on moulds (fixed or variable /sequential) are	6	4	2

ng		available				
		PC5. Ensure regular checks are conducted for moulds and presses for accuracy and readiness for operation	4	4	0	
		PC6. Identify defective equipment and take action as per SOP	12	6	6	
		PC7. Arrange to provide hand tools and safety gears such as masks, gloves etc. for workers before starting the opeartion	2	0	2	
		PC8. Ensure all the services such as steam - low pressure and high pressure , hot water , cold water , air etc are available for curing operation	3	0	3	
		PC9. Ensure if the temperature and pressure conditions of these services are within the specification and specified tolerances	8	4	4	
		PC10. Comply with the maintenance schedule and ensure that maintenance programme of the presses are carried out on regular basis	3	3	0	
		PC11. Ensure that each individual mold position, curing cycle specifications are in place	6	4	2	
		PC12. Ensure that the operator checks temperature , pressure of the services to the individual presses and the mould locations	6	3	3	
		PC13. Check if the curing record charts are in place	3	3	0	
		PC14. Comply with Mould change schedules	2	2	0	
		PC15. Ensure that mold warm up procedures are followed at the start ups as specified	2	0	2	
	Raw Material Readiness		PC16. Check the product received for moulding/curing is as per the scheduler	2	2	0
			PC17. Ensure the receiving of correct green product i.e. the material has lab release ID tags or correct code marking	2	2	0
			PC18. Inspect the material carefully to detect any defcet and report the same to the concerned person before starting the operation and arrange for replacement of affected material in case required	9	6	3
			PC19. Ensure the services for mulding/curing are available wirh required specified temperature and pressure	2	2	0
	Manpower Readiness		PC20. Ensure that the manpower required for achieving the moulding/curing schedule are available.	1	1	0
			PC21. Arrange for the substitute in case of absenteeism of any team member due to any injury, accident, leave etc.	1	1	0

		PC22. Delegate the task and inform the team members well in time about the schedule to be met in the given time frame	1	1	0
		PC23. Train the manpower for handling emergency situations	1	1	0
		PC24. Resolving issues (if any) among the team members before the commencement of operations	2	2	0
	Health & Safety	PC25. Ensure that team members adhere to all safety norms (such as wearing protective gloves, masks, goggles and safety shoes).	4	2	2
		PC26. Avoid skin contact of hot product and other chemicals	4	2	2
		PC27. Precaution for holding hot product coming out of Press	2	0	2
		PC28. Manage first aid, general medication etc. of the team members	1	1	0
		PC29. Arrange for hospitalization in case of accident	1	1	0
		PC30. Ensure no tampering of safety ropes/switches/extinguishers/alarms fitted on the machines or work area	1	0	1
		PC31. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department	4	2	2
		PC32. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.	1	1	0
			100	60	40
RSC / N 0234 Supervise the moulding/curing operations	Operation	PC1. Ensure that the operator follows the moulding/curing process as per the authorized instructions issued by technical (manually/through automated operations)	8	2	6
		PC2. Ensure that the operator follow the sequence to make available different cured products as per the requirement	9	3	6
		PC3. Ensure all laid out procedures/guidelines are in compliance	5	2	3
		PC4. Ensure that the work is carried out as per the schedule	3	3	0
		PC5. Keep a close watch on timer setting , pressure drops and delays in loading /unloading and PCI application	2	0	2
		PC6. In case of pressure drops , follow the guidelines of technical on cure extension to save the product from getting scrapped or to avoid rubber getting stuck to mold	6	2	4
		PC7. Ensure that the mould placed is continuously heated and maintained at the proper specified temperature	4	0	4

		PC8. Keep a check on working of curing press and ensure that press is not left idle	2	0	2
		PC9. Maintain the continuity of the curing process, complete his/her shift and get the preparatory work done for next shift as well	2	2	0
		PC10. Check first moulded item for all markings to ensure that the correct product with NO mould related defects and correct markings are sent to the customer	7	3	4
		PC11. Monitor press opening and closing time	2	0	2
		PC12. Ensure no wastage of time during loading and unloading	2	2	0
		PC13. Ensure that post cure activities are carried out correctly and on time	2	2	0
		PC14. Check if the operator loads the product properly and follows the shaping cycles as per required specification	4	0	4
		PC15. Avoid contamination while carrying out the operation	5	2	3
		PC16. Check if operator marks down any visible defect once the product is released from molds/presses	6	2	4
		PC17. Ensure visual inspection of cured product for any defect such as cracks , lights, blisters and blows	12	6	6
	Health & Safety	PC18. Ensure that team members adhere to all safety norms (such as wearing protective gloves,masks, goggles and safety shoes).	6	2	4
		PC19. Avoid skin contact of hot product and other chemicals	4	2	2
		PC20. Precaution for holding hot product coming out of Press	2	0	2
		PC21. Arrange for hospitalization in case of accident	1	1	0
		PC22. Manage first aid, general medication etc. of the team members	1	1	0
		PC23. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department	4	2	2
		PC24. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.	1	1	0
			100	40	60
RSC / N 0235 Conduct post-moulding/curing supervisory operations	Batch Marking	PC1. Ensure identification and traceability by marking/coding for the cured product as per the instructions laid down by the technical	13	8	5
	Sampling	PC2. Ensure to send sample of the cured product in the specified sample size and method as directed by the technical department	7	3	4
	Operation	PC3. Get the the prepared product stored at designated place with proper ID tags	6	3	3

		and hold until release tags in the allotted storage area .			
		PC4. Ensure the storage is done to facilitate the FIFO	7	3	4
		PC5. Arrange to send the cured product for inspection	6	6	0
		PC6. Manage to provide maintenance time for any repair and scheduled long maintenance of curing press and moulds	2	2	0
		PC7. Arrange to place DO NOT USE tag on product having any defects; either hold it for any other use, reschedule its preparation	7	4	3
		PC8. Arrange to reschedule themoulding/curing of the affected products	3	3	0
		PC9. Send the defective/rejected material to hold area and keep the storage space free for OK material	4	4	0
	Record Maintenance and Reporting	PC10. Update the production sheet with the details of prepared material and record down time with details on reasons, time from to end and mention action taken to solve the down time	13	3	10
		PC11. Paper /computer documents must be complete and traceable in all respect	9	6	3
		PC12. Records of the team members for work done, availability in shift, working hours etc	3	3	0
	Material Disposal	PC13. Ensure to get the waste material disposed off as per waste disposal/work away procedures laid down by the technical department	3	0	3
	Health & Safety	PC14. Ensure that team members adhere to all safety norms (such as wearing protective gloves,masks, goggles and safety shoes).	6	4	2
		PC15. Arrange for hospitalization in case of accident	1	1	0
		PC16. Manage first aid, general medication etc. of the team members	2	2	0
		PC17. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department	6	3	3
		PC18. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards	2	2	0
			100	60	40
RSC/N5001 To Carry Out Housekeeping	Pre housekeeping activities	PC1. Inspect the area while taking into account various surfaces	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
Operations	PC10. Use the correct cleaning method for the work area, type of soiling and surface	3	3	0
	PC11. Carry out cleaning activity without disturbing others	3	3	0
	PC12. Deal with accidental damage, if any, caused while carrying out the work	3	3	0
	PC13. Report to the appropriate person any difficulties in carrying out your work	3	3	0
	PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill	3	3	0
Post housekeeping activities	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
General	PC23. Maintain schedules and records for housekeeping duty	3	3	0
	PC24. Replenish any necessary supplies or consumables	3	3	0
		100	70	30

RSC/N5002 To Carry Out Reporting And Documentation	Reporting	PC1. Report data/problems/incidents as applicable in a timely manner	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
	Recording and Documentation	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
	Information Security	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
			100	60	40
RSC/N5003 To Carry Out Quality Checks	Inspection	PC1. Ensure that total range of checks are regularly and consistently performed	24	10	14
		PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required	24	10	14
	Analysis	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
	Reporting	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
			100	60	40
RSC/N5004 To Carry Out Problem Identification And Escalation	Problem Identification	PC1. Identify defects/indicators of problems	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
	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)	8	5	3
		PC8. Consider possible reasons for identification of problems	8	5	3
		PC9. Consider applicable corrections and formulate corrective action	3	3	0
		PC10. Formulate action in a timely manner	3	3	0
		PC11. Communicate problem/remedial action to appropriate parties	7	5	2
		PC12. Take corrective action in a timely manner	2	2	0
		PC13. Take corrective action for problems identified according to the company procedures	2	2	0
		PC14. Report/document problem and corrective action in an appropriate manner	8	5	3
		PC15. Monitor corrective action	2	2	0
		PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved	2	2	0
		PC17. Ensure that corrective action selected is viable and practical	2	2	0
		PC18. Ensure that correct solution is identified to an identified problem	2	2	0
		PC19. Take corrective action for problems identified according to the company procedures	1	1	0
		PC20. Ensure that no delays are caused as a result of failure to take necessary action	1	1	0
	Problem Escalation	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
			100	70	30