

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR RUBBER INDUSTRY

What are Occupational Standards(OS)?

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

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Introduction

Qualifications Pack- Mixing Supervisor

SECTOR: RUBBER INDUSTRY

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

OCCUPATION: Mixing

REFERENCE ID: RSC/ Q 0111

ALIGNED TO: NCO-2004/NIL

Brief Job Description: A Mixing Supervisor is responsible to supervise all the processes involved in mixing operation that is being carried out to prepare the master batch and final batch of rubber compound in Banbury /Mixer/ Kneader and/or Open Mill. He is responsible to monitor and manage the mixing area w.r.t machines, equipments, manpower and material.

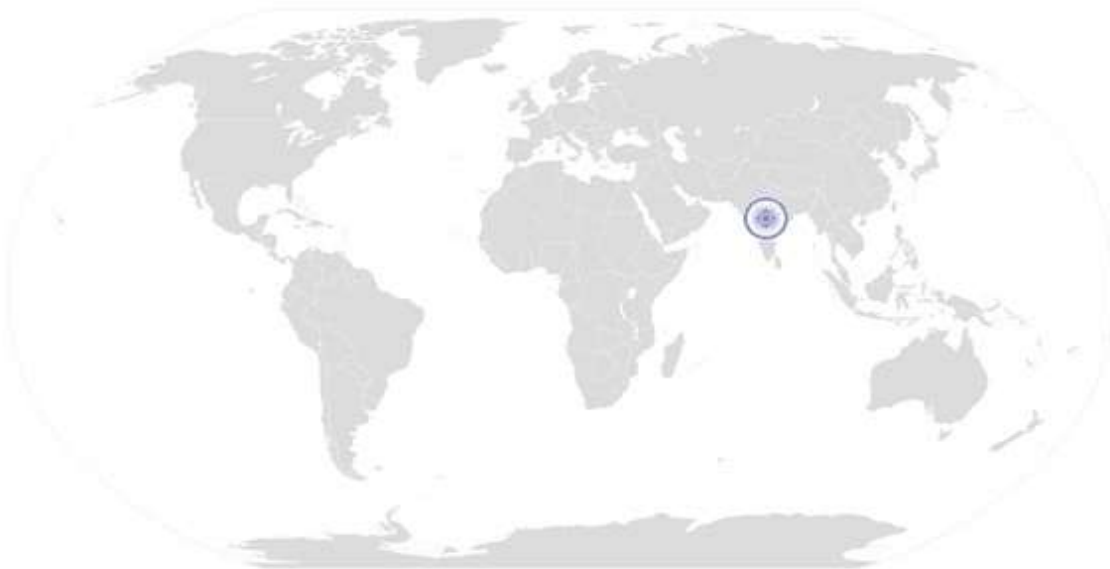
Personal Attributes: This job requires the individual to have good leadership qualities. He should have strong reasoning and analytical mind set. He should be able to delegate task appropriately considering the ability and availability of manpower in his team. He should be authoritative in delivering 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 0111		
	Job Role	Mixing 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	Mixing	Next review date	02/12/15
	NSQC Cleanace on	20/07/2015		

Job Role	Mixing Supervisor
Role Description	A Mixing Supervisor is responsible to supervise all the processes involved in mixing operation that is being carried out to prepare the master batch and final batch of rubber compound in Banbury /Mixer/ Kneader and/or Open Mill. Process involves receiving raw material from stores, weighing for batch mixing, identification and storing of mixed compounds and supply compounds to user areas. This also involves submitting samples to lab and getting the batches released for the next stage of production.
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 in the roles related to mixing operations
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> RSC/ N 0130 (Supervise the preparatory activities for mixing) RSC/N 0131 (Supervise the mixing operations) RSC/N 0132 (Conduct post-mixing 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 mixing area.

Supervise the preparatory activities for mixing

Unit Code	RSC / N 0130
Unit Title (Task)	Supervise the preparatory activities for mixing
Description	Th unit is about supervising the preparatory activities w.r.t. tools, equipments, machine, manpower, material and mixing area.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Ensure housekeeping and safety in the mixing area • Ensure that tools, equipments and machines are well maintained and functioning properly • Ensure adequate trained manpower is available for undertaking mixing operations • Ensure that compound requirements/specifications are available in writing • Monitor that the raw material required and its uninterrupted flow • Ensure the accurate parameter settings for machines
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 machines are operational</p> <p>PC2. Ensure all tools required for the mixer area operations are readily available</p> <p>PC3. Ensure regular checks are conducted for machines for accuracy and readiness for operation</p> <p>PC4. Identify defective equipment and take action as per SOP</p> <p>PC5. Set pressure and other parameters; set mixing time and follow the sequence to make available different compound mix as per the requirement</p> <p>PC6. In case settings on automated mixer are set by technical associates, ensure operator doesn't fiddle with settings and follows only authorized settings</p> <p>PC7. Arrange to provide tools like mill knives , butcher knives masks, gloves ,rags etc. for workers before starting the mixing opeartion</p> <p>PC8. Ensure that all services such as steam, water ,electricity, etc are available at all times</p> <p>PC9. Comply with the maintenance schedule and ensure that maintenance programme of the mixer are carried out on regular basis</p> <p>PC10. Batch off mill gauge and proper cooling water flow .</p>

Supervise the preparatory activities for mixing

	PC11. Roller die set up .
Raw Material Readiness	<p>PC1. Check the material coming from raw material stores and confirm that it is as per the scheduler</p> <p>PC2. Ensure the receiving of correct material in mixing area i.e. the material has lab release ID tags or colour code marking</p> <p>PC3. Inspect the material carefully to detect torn bag, contaminated material etc. and report the same to the stores supervisor and his foreman before starting the mixing operation and arrange for replacement of affected material in case required</p> <p>PC4. Get the pigments /chemicals filled in the appropriate bins for facilitating weighing</p> <p>PC5. Ensure polymer bales or pre-cut and are kept near the put up conveyors for final weighing and charging into mixer when the mixing operation commences</p> <p>PC6. Ensure functioning of carbon black manual or auto feeders</p> <p>PC7. Ensure functioning of process oil manual or auto feeding units</p> <p>PC8. Ensure availability of slab dip or dip slurry for cooling and using as separating agents for mixed compound slabs/sheets</p>
Manpower Readiness	<p>PC9. Ensure that the manpower required for achieving the compound mix schedule are available.</p> <p>PC10. Arrange for the substitute in case of absenteeism of any team member due to any injury, accident, leave etc.</p> <p>PC11. Delegate the task and inform the team members well in time about the mixing schedule to be met in the given time frame</p> <p>PC12. Train the manpower for handling emergency situations</p> <p>PC13. Resolving issues (if any) among the team members before the commencement of mixing operations</p>
Health & Safety	<p>PC14. Ensure that team members adhere to all safety norms (such as wearing protective gloves, masks, goggles and safety shoes).</p> <p>PC15. Manage first aid, general medication etc. of the team members</p> <p>PC16. Arrange for hospitalization in case of accident</p> <p>PC17. Ensure no tampering of safety ropes/switches/extinguishers/alarms fitted on the machines or mixer area</p> <p>PC18. Avoid spillage and in case of spillage occur, follow safety measures as laid down by safety department</p> <p>PC19. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational</p>

	standards.
Knowledge and Understanding (K)	
<p>A. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KA1. Implications of poorly prepared tools, equipments, machines and manpower. KA2. Company's quality policies and acceptance standards for raw materials, processed and final product. KA3. Organisational Coding system of raw material, compounds and products KA4. Importance of identifying non-conforming material. KA5. Risk and impact of not following defined procedures/work instructions. KA6. Escalation matrix for reporting identified problems. KA7. Types of documentation in organization and importance of the same. KA8. Records to be maintained and the implications of their non-maintenance. KA9. Importance of housekeeping activities. KA10. Health, safety and environment guidelines, legislation and regulations as applicable. KA11. Personal and Personnel protection (which protective equipment to be used and how). KA12. Impact of poor practices on health, safety and environment. KA13. Potential hazards and actions to minimize them. KA14. The escalation matrix and procedures for reporting hazards. KA15. Impact of various practices on cost, quality, productivity, delivery and safety. KA16. Importance of optimal utilization of material, equipment and manpower. KA17. Importance of effective human resource management. KA18. Importance of achieving the set target in timely manner.
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KB1. Rubber compound processing with different types of Mixers. KB2. Proper handling of rubbers & chemicals KB3. Importance of proper weighing of rubber and other ingredients KB4. Effect of wrong weighing of ingredients KB5. Different type of Mixers and their operation KB6. Process of proper compound mixing and ingredient dispersion KB7. Effect of improper processing on properties of rubber compound & product KB8. Importance of effective time and human resource management KB9. Relevance of addressing issues with superiors / HR that is beyond his control KB10. Specifications of materials and its importance in the compound preparation KB11. Implications (impact on internal/external customers) of defective products, materials or components. KB12. Material Safety Data Sheets (MSDS) for all the materials used

Supervise the preparatory activities for mixing

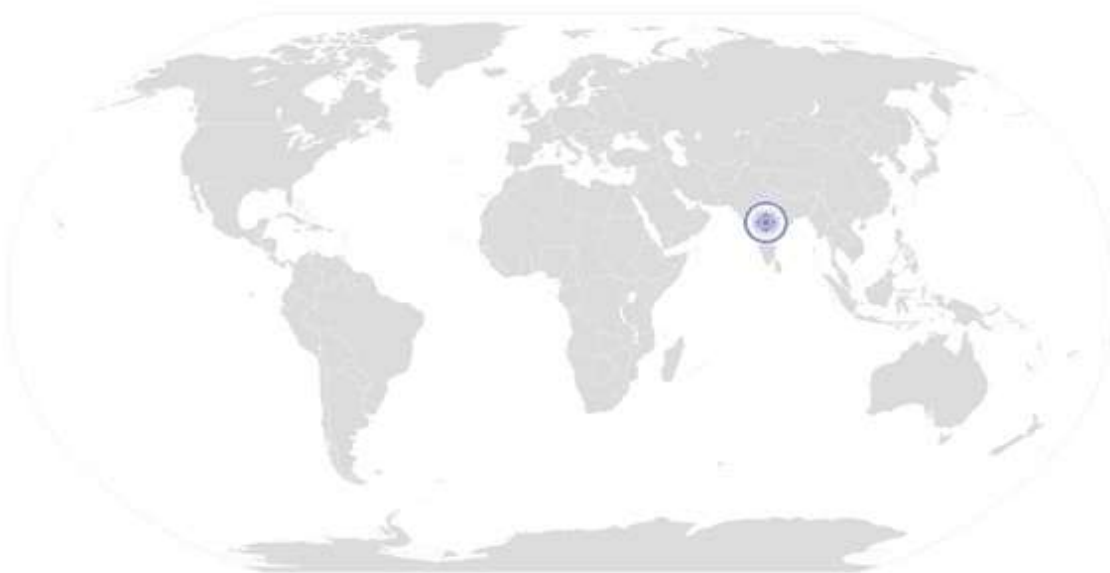
	<p>KB13. MSDS for all incoming raw materials</p> <p>KB14. Use of Computer/application software</p> <p>KB15. Response to emergencies e.g. Power failures, fire and system failures and manual intervention to avoid disaster</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual 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 storage operator, lab chemist, maintenance manager etc.</p> <p>SA14. Communication with 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>
Integrity	

Supervise the preparatory activities for mixing

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA17. Practice honesty with respect to company property and time</p> <p>SA18. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA19. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p>
	<p>Motivation</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA20. Take responsibility for completing one’s own work assignment and the work under supervision</p> <p>SA21. Take initiative to enhance/learn skills in ones’s area of work</p> <p>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.</p> <p>SA23. Is open to new ways of doing things</p> <p>SA24. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	<p>Reliability</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA25. Avoid absenteeism</p> <p>SA26. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA27. Work in disciplined factory environment</p> <p>SA28. Be punctual</p>
B. Professional Skills	<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 tools and equipment and processing with different types of mixers</p> <p>SB2. Handle raw materials required for compound preparation</p> <p>SB3. Handle rubber and chemicals</p> <p>SB4. Perform computer operations</p> <p>SB5. The capacity to 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.</p> <p>SB6. Handling the coordination among team members</p> <p>SB7. Report team members issues to HR department that is beyond his control</p>
	<p>Subject Knowledge and Analytical Thinking</p>

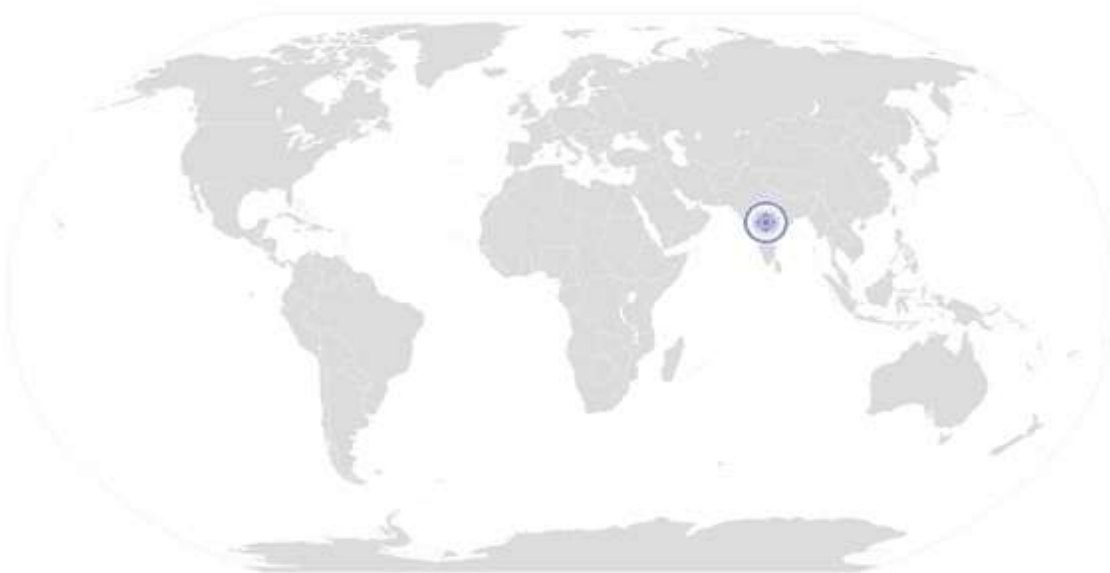
Supervise the preparatory activities for mixing

	<p>The user/individual on the job needs to have:</p> <ul style="list-style-type: none">SB8. Thorough knowledge of physics, chemistry, mathematics and electronicsSB9. 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">SB10. Diagnose common problems in the material, machines and equipments based on visual inspection and quality checksSB11. Suggest improvements(if any) in process based on experienceSB12. Manage time and human resource effectivelySB13. Ability to demonstrate proper training to team members/SB14. Handling Emergency situations effectively during operations
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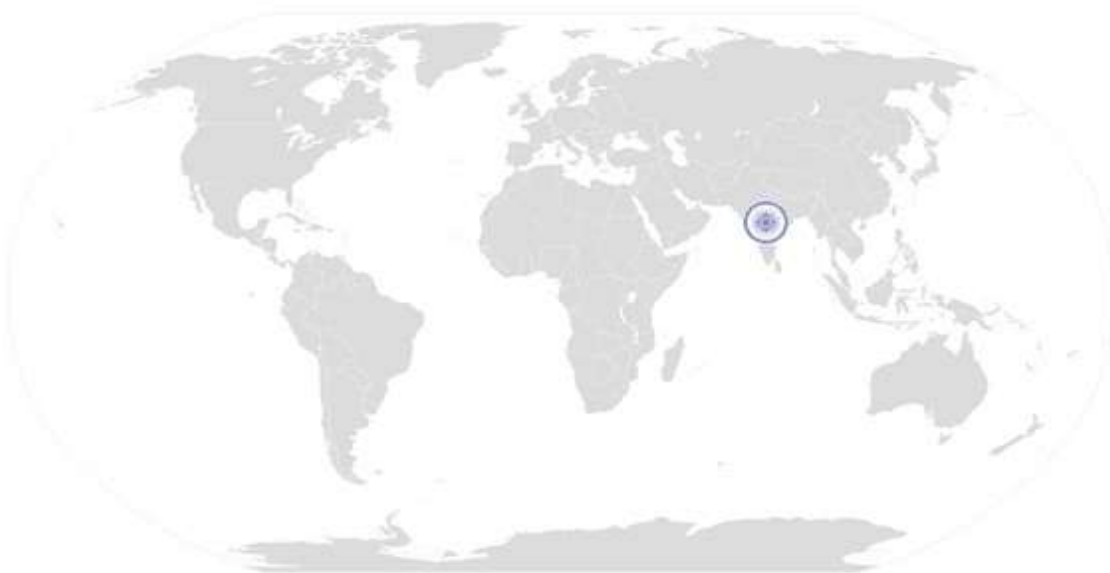
NOS Version Control

NOS Code	RSC / N 0130		
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	Mixing	Next review date	02/12/15



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National Occupational Standard



Overview

This unit is about supervising the mixing operation to prepare the masterbatch or final batch of rubber compound.

Supervise mixing operations

National Occupational Standard

Unit Code	RSC / N 0131
Unit Title (Task)	Supervise mixing operations
Description	This unit is about supervising the mixing operation to prepare the masterbatch or final batch of rubber compound.
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 mixing operations are properly conducted <p>Achieve required output with minimum downtime and waste generation</p>
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Operation	<p>PC1. Ensure that the operator follows the sequence of addition of ingredients and mixing instructions as per the authorized mixing instructions issued by technical (manually/through automated operations)</p> <p>PC2. Ensure that the operator follow the sequence to make available different compound mix as per the requirement</p> <p>PC3. Ensure mixers temperature/pressure/volume restrictions are respected and followed</p> <p>PC4. Ensure all laid out procedures/guidelines are in compliance</p> <p>PC5. Keep a check on cycle time (between one batch to another) to attain efficiency.</p> <p>PC6. Ensure no bye passing/ short cutting of sequence in compound preparation</p> <p>PC7. Ensure adequate cooling of mixed compound before laying down on skids/pallets/ gondolas</p> <p>PC8. Avoid contamination while carrying out the mixing operation</p> <p>PC9. Ensure proper application of slab dip /dip slurry for facilitatating the satcking of mixed compounds and its easy usage for next processing</p> <p>PC10. Ensure compliance of compounds dispositioned for work away through mixers respecting the directive</p>
Health & Safety	<p>PC20. Ensure that team members adhere to all safety norms (such as wearing protective gloves,masks, goggles and safety shoes).</p> <p>PC21. Arrange for hospitalization in case of accident</p> <p>PC22. Manage first aid, general medication etc. of the team members</p> <p>PC23. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department</p> <p>PC24. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational</p>

Supervise mixing operations

	standards.
Knowledge and Understanding (K)	
<p>B. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KA1. Implications of improper compound preparation. KA2. Optimal utilization of material, machines and manpower. KA3. Company's quality policies and acceptance standards for raw materials, processed and final product. KA4. Organisational Coding system of raw material, compounds and products KA5. Different quality management systems KA6. Importance of identifying non-conforming materials. KA7. Risk and impact of not following defined procedures/work instructions. KA8. Risks involved in violating mixer machine limitations KA9. Escalation matrix for reporting identified problems. KA10. Types of documentation in organization and importance of the same. KA11. Records to be maintained and the implications of their non-maintenance. KA12. Importance of housekeeping activities. KA13. Health, safety and environment guidelines, legislation and regulations as applicable. KA14. Personal and Personnel protection (which protective equipment to be used and how). KA15. Impact of poor practices on health, safety and environment. KA16. Potential hazards and actions to minimize them. KA17. The escalation matrix and procedures for reporting hazards. KA18. Impact of various practices on cost, quality, productivity, delivery and safety. KA19. Importance of optimal utilization of material, equipment and manpower.
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KB1. Importance of following SOP for compound preparation KB2. Rubber compound processing with different types of Mixers. KB3. Proper handling of rubbers and chemicals KB4. Use of correct updated formulation KB5. Importance of meeting schedules for mixing operation KB6. Implications of delay in mixing operations KB7. Implications of not restricting the violation of mixer machine limitations on Tempartue/pressure/mix batch volumes KB8. Implications of not meeting the quality specifications KB9. Properties of material in use and compound prepared KB10. Proper monitoring of manpower and machines

Supervise mixing operations

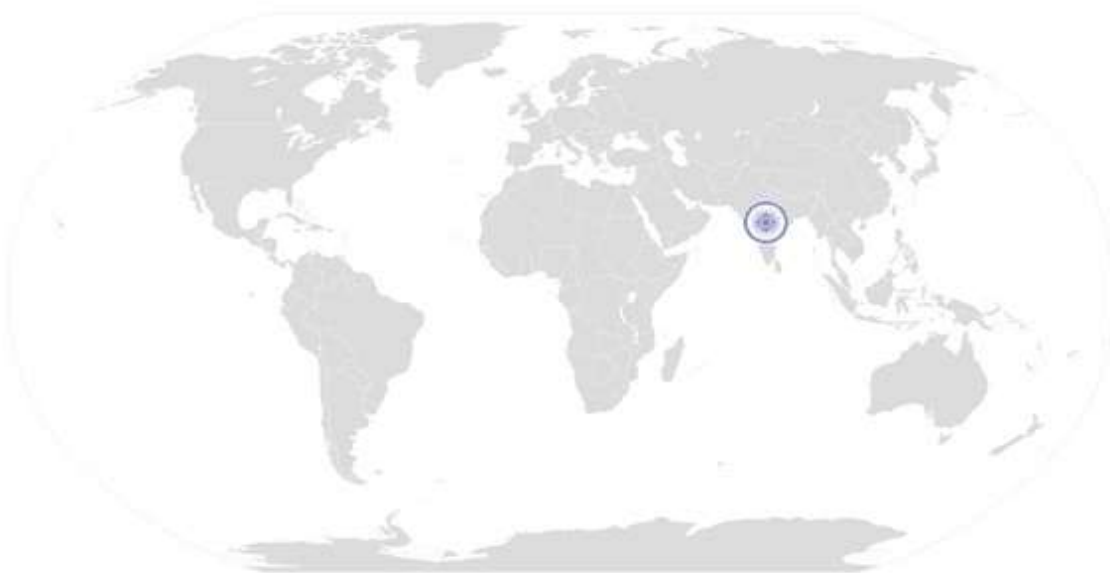
	<p>KB11. Implications of non-confirming compound preparation</p> <p>KB12. Importance of maintaining efficiency and attain scheduled target shift wise</p> <p>KB13. Implications of poor or improper usage of slab dip /dip slurry for compound sheet easy storage and separation</p> <p>KB14. Implications of 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> <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. Write performance reports</p> <p>SA7. 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>SB1. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SB2. Read images, graphs, diagrams</p> <p>SB3. Understand the various coding systems as per company norms</p> <p>SB4. 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>SB1. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SB2. Respond appropriately to any queries</p> <p>SB3. Communicate with all team members</p> <p>SB4. Communicate with other job owners like stororage operator,lab chemist, maintenance manager etc.</p> <p>SB5. Instruct the team and encourage the team to adapt behavioral skills required to support the group activities.</p>
Integrity	

Supervise mixing operations

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA29. Practice honesty with respect to company property and time</p> <p>SA30. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA31. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p>
	<p>Motivation</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA32. Take responsibility for completing one’s own work assignment and the work under supervision</p> <p>SA33. Take initiative to enhance/learn skills in ones’s area of work</p> <p>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.</p> <p>SA35. Is open to new ways of doing things</p> <p>SA36. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	<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>
D. Professional Skills	<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 different types of mixers</p> <p>SB2. Handle raw material required for compound preparation</p> <p>SB3. Handle rubber and chemicals</p> <p>SB4. Perform computer operations</p> <p>SB5. Maintain safety , quality and productivity</p> <p>SB6. Handling the coordination among team members</p> <p>SB7. Report team members issues to HR department that is beyond his control</p>
	<p>Subject Knowledge and Analytical Thinking</p>

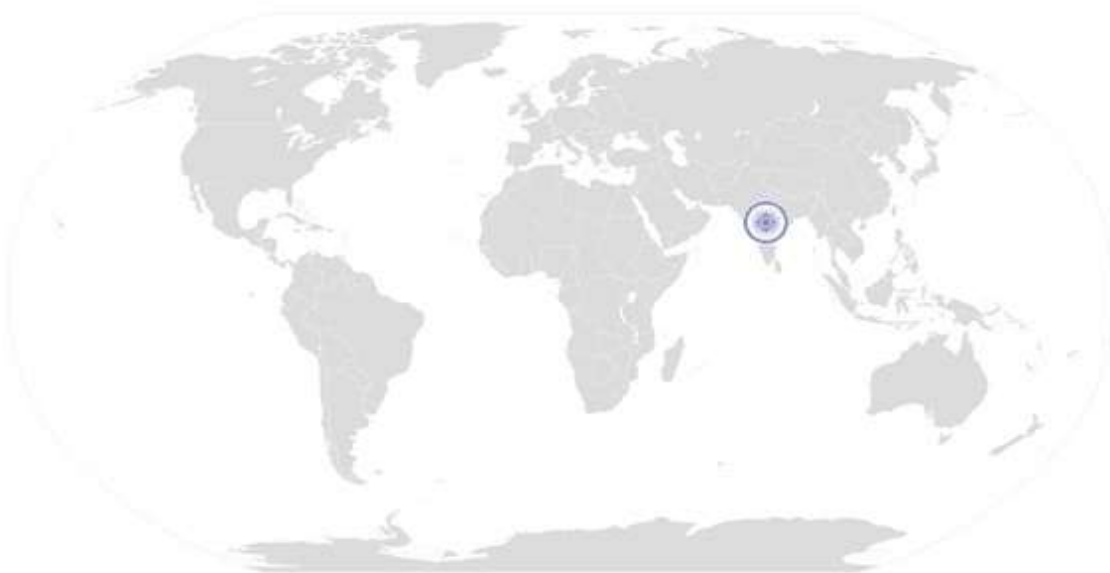
Supervise mixing operations

	<p>The user/individual on the job needs to have:</p> <ul style="list-style-type: none">SB15. Thorough knowledge of physics, chemistry, mathematics and statisticsSB16. 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">SB17. Diagnose common problems in the mixing operationSB18. Suggest improvements(if any) in process based on experienceSB19. Manage time and human resource effectivelySB20. 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.SB21. Handling emergency situations effectivelySB22. Optimal utilization of raw material and minimal wastage
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NOS Version Control

NOS Code	RSC / N 0131		
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	Mixing	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 mixing operation.

Conduct post-mixing supervisory operations

Unit Code	RSC / N 0132
Unit Title (Task)	Conduct post-mixing supervisory operations
Description	This unit is about supervising operations which are carried out after the mixing operations.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Ensure housekeeping and safety in mixing area • Ensure marking the batch/s with proper identification and tags for further processing • Send sample to lab for testing • Storage of compound and waste disposal • Storage of off spec or suspicious compounds and getting their disposal done through technical review committee • Maintain Record
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Batch Marking	PC1. Ensure identification and traceability by batch marking/coding for the compound as per the instructions laid down by the company.
Sampling	PC2. Send sample of the prepared mix in the specified sample size and method as directed by the company
	<p>PC1. Get the the mixed compound stored on designated skids/ gondolas/pallets 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. Ensure compliance of FIFO by the user department</p> <p>PC4. Get the mixer properly clean and ready after completion of mixing operation</p> <p>PC5. On continuous operations, ensure mandatory cleaning procedures, as per instructions from Technical, between compound changes and at shift ends are complied with</p> <p>PC6. Manage to provide maintenance time for any repair and scheduled long maintenance of mixer/s</p> <p>PC7. Arrange to place DO NOT USE tag on compound having any defects; either hold it for any other use, reschedule its preparation,</p> <p>PC8. Arrange to reschedule the mixing of the affected compound urgently to keep the plant process on for smooth running</p> <p>PC9. Ensure the storage of master batch in mixing area only; release only the final batch for further processing.</p>

Conduct post-mixing supervisory operations

	<p>PC10. Send the defective/rejected material to hold area and keep the storage space free for OK material</p> <p>PC11. Provide mixers on scheduled dates for Mixer inspections/ rotor clearance checks</p>
Record Maintenance and Reporting	<p>PC12. Ensure all the mixing details are properly recorded in the forms/formats/log books/computers</p> <p>PC13. 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>PC14. Paper /computer documents must be complete and traceable in all respect</p> <p>PC15. Records of the team members for work done, availability in shift, working hours etc</p> <p>PC16. Maintain inventory of mixed compounds</p>
Material Disposal	<p>PC17. Ensure the held up compound is disposed off by technical.</p> <p>PC18. Ensure the action on disposition of off spec material is carried out promptly</p>
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 compounds.</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. Different quality management systems</p> <p>KA6. Importance of identifying non-conforming material.</p> <p>KA7. Risk and impact of not following defined procedures/work instructions.</p> <p>KA8. Escalation matrix for reporting identified problems.</p> <p>KA9. Types of documentation in organization and importance of the same.</p> <p>KA10. Records to be maintained and the implications of their non-maintenance.</p> <p>KA11. Importance of housekeeping activities.</p>

Conduct post-mixing supervisory operations

	<p>KA12. Health, safety and environment guidelines, legislation and regulations as applicable.</p> <p>KA13. Personal and Personnel protection (which protective equipment to be used and how).</p> <p>KA14. Impact of poor practices on health, safety and environment.</p> <p>KA15. Potential hazards and actions to minimize them.</p> <p>KA16. The escalation matrix and procedures for reporting hazards.</p> <p>KA17. Importance of FIFO</p> <p>KA18. Impact of various practices on cost, quality, productivity, delivery and safety.</p> <p>KA19. Importance of optimal utilization of material, equipment and manpower.</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The Material Safety Data Sheets (MSDS) for all the materials used Procedures for storing and retention period for samples</p> <p>KB2. How to obtain and interpret records, charts, specifications, equipment manuals, history/technical support reports and other documents</p> <p>KB3. Methods and techniques involved in mixing operation</p> <p>KB4. Use of Computer/application software – Use password as per Company SOP under information leaking problem</p> <p>KB5. Importance of record maintenance</p> <p>KB6. Importance of timely delivery of prepared compound</p> <p>KB7. Effective communication at different levels</p> <p>KB8. Knowledge of traceability</p> <p>KB9. Record track of team members</p> <p>KB10. Process and importance of quality checks.</p> <p>KB11. Batch marking techniques.</p> <p>KB12. Implications of incorrect batch marking.</p> <p>KB13. Implications of inappropriate waste disposal.</p> <p>KB14. Types of defects leading to rejections and their indicators, reasons and possible solutions.</p> <p>KB15. Coding systems for identification and traceability.</p> <p>KB16. Knowledge of weighing scales.</p> <p>KB17. Knowledge of the storage life of prepared compound, ambient temperature and its effect on final product.</p> <p>KB18. 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.</p>

Conduct post-mixing supervisory operations

	<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>SA1. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA2. Read images, graphs, diagrams</p> <p>SA3. Understand the various coding systems as per company norms</p> <p>SA4. Understand procedural guidelines</p> <p>SA5. Interpret and understand lab testing reports</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA2. Respond appropriately to any queries</p> <p>SA3. Communicate with team members and other job owners</p> <p>SA4. Instruct the team and encourage the team to adapt behavioral skills required to support the group activities.</p> <p>SA5. Disclose information only to those who have the right and need to know it.</p> <p>SA6. Communicate confidential and sensitive information discretely to authorized person as per SOP</p>
	Integrity
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. Practice honesty with respect to company property and time</p> <p>SA2. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA3. 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>SA1. Take responsibility for completing one's own work assignment and the work under supervision</p> <p>SA2. Take initiative to enhance/learn skills in one's area of work</p>

Conduct post-mixing supervisory operations

	<p>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.</p> <p>SA4. Is open to new ways of doing things</p> <p>SA5. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	<p>Reliability</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. Avoid absenteeism</p> <p>SA2. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA3. Work in disciplined factory environment</p> <p>SA4. Be punctual</p>
F. Professional Skills	<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 test reports</p> <p>SB2. Handle record books</p> <p>SB3. Perform computer operations</p> <p>SB4. Managing pressure and adhering to strict guidelines/procedures for completing mixing operation in timely manner</p> <p>SB5. Handling the coordination among team members</p> <p>SB6. Manage the work area by reducing the quantity of off spec. mixed or suspicious compounds</p> <p>SB7. 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 statistics</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 compound 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 for training team members</p> <p>SB7. Attaining schedule targets in given timelines</p>

Conduct post-mixing supervisory operations

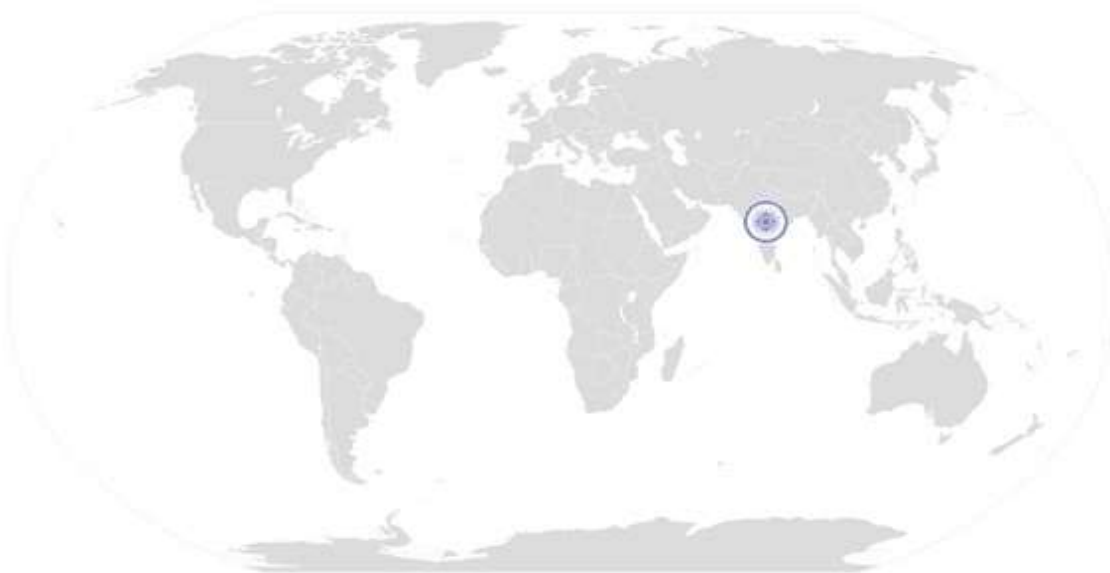
NOS Version Control

NOS Code	RSC / N 0132		
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	Mixing	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>

Carry Out Housekeeping Activities

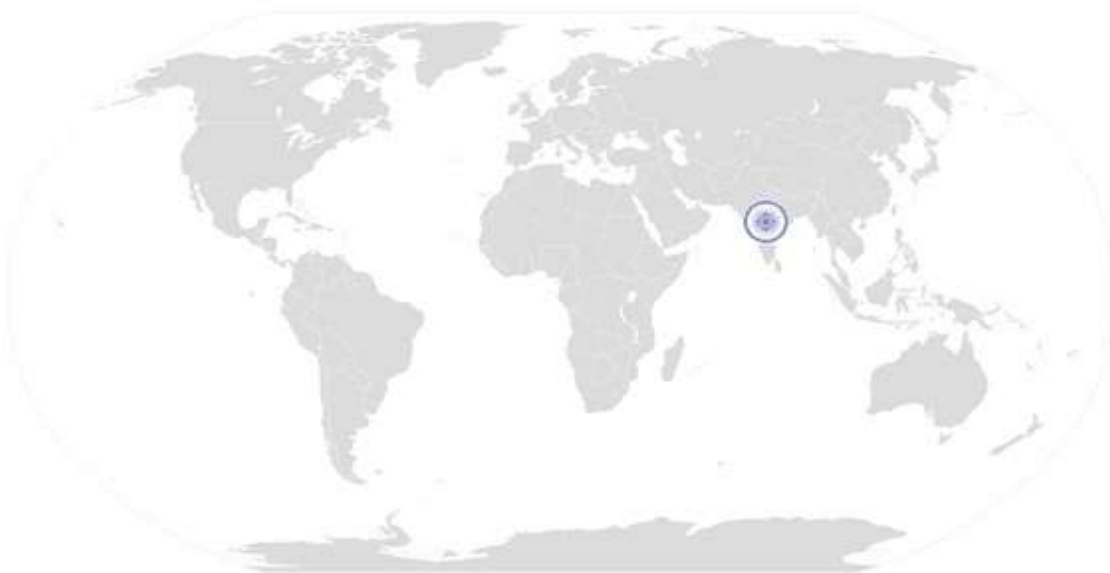
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format 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

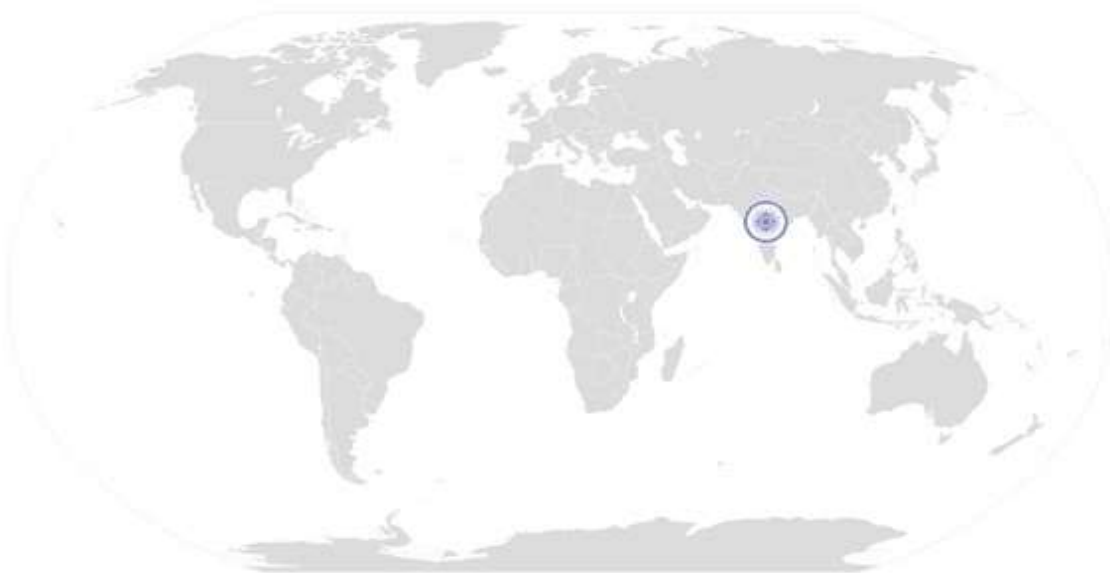


NOS Code	RSC / N 5001		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/14
Industry Sub-sector	Tyre and NonTyre	Last reviewed on	14/06/14
Occupation	Mixing	Next review date	14/06/15



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National Occupational Standard



Overview

This unit is about reporting and documentation

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>

To Carry Out Reporting And Documentation

	<p>KB9. The importance of ensuring that the documents are correct</p> <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>
<p>Skills (S)</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing Skills</p>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p>
	<p>Reading and Understanding Skills</p>
	<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>
	<p>Oral Communication (Listening and Speaking skills)</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>
	<p>Integrity</p>
	<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</p>

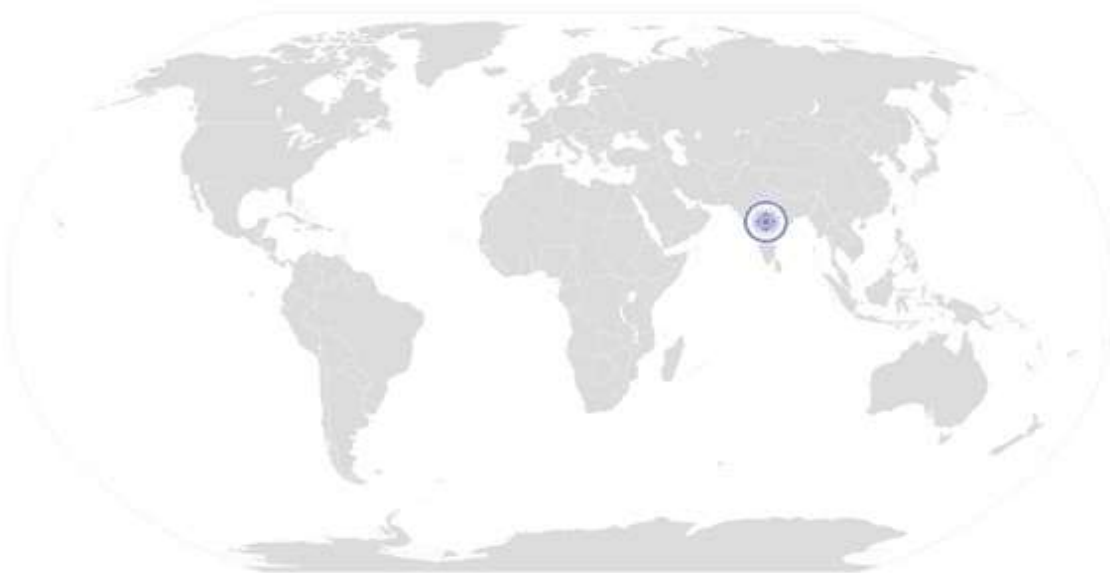
To Carry Out Reporting And Documentation

	appropriate person, in a way that preserves goodwill and trust
	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>

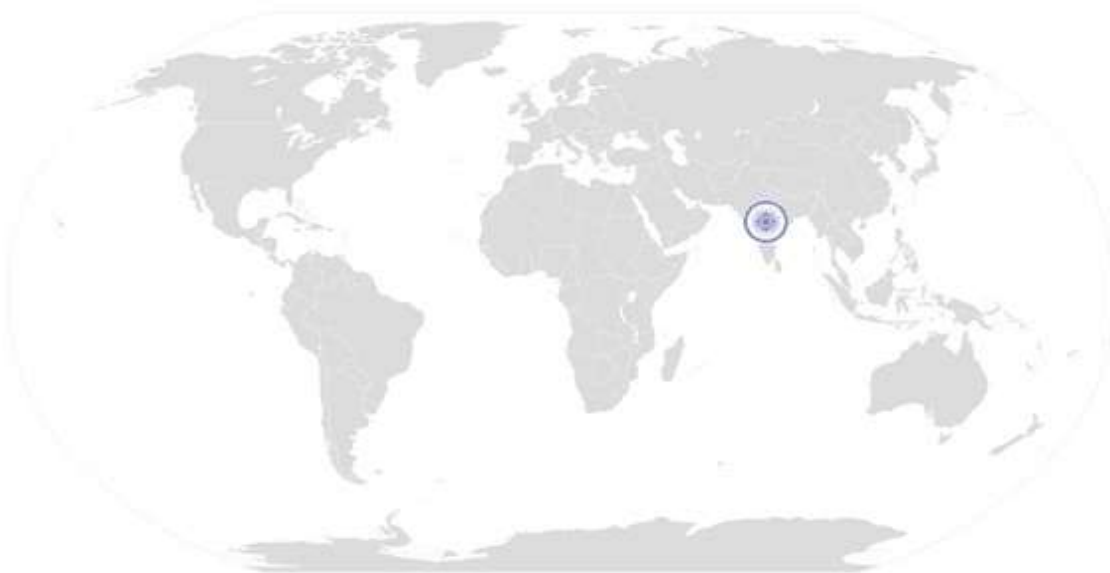
NOS Version Control

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	Mixing	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>

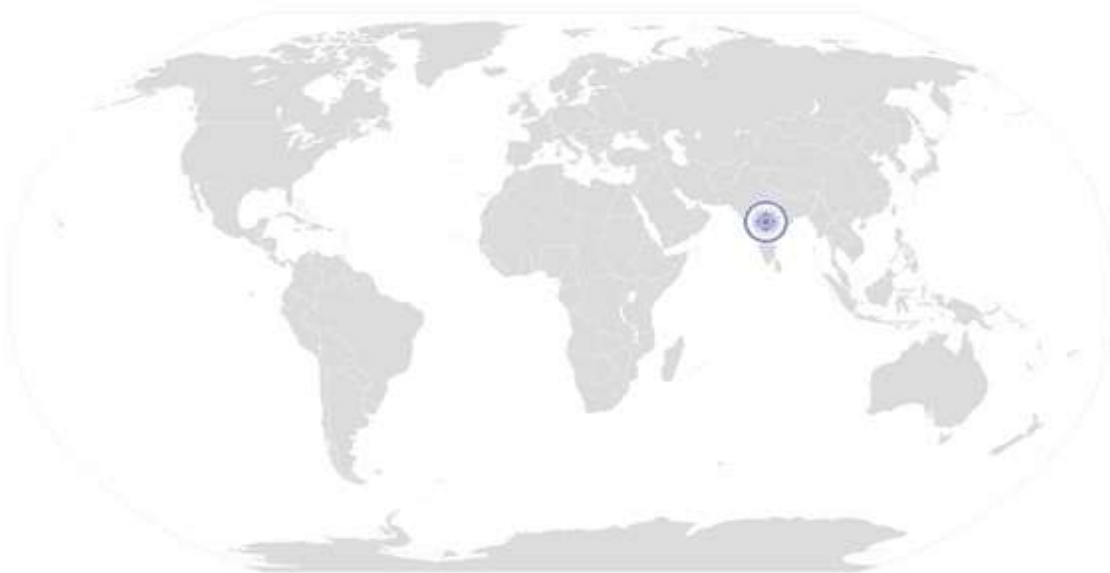
To Carry Out Quality Checks

	<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

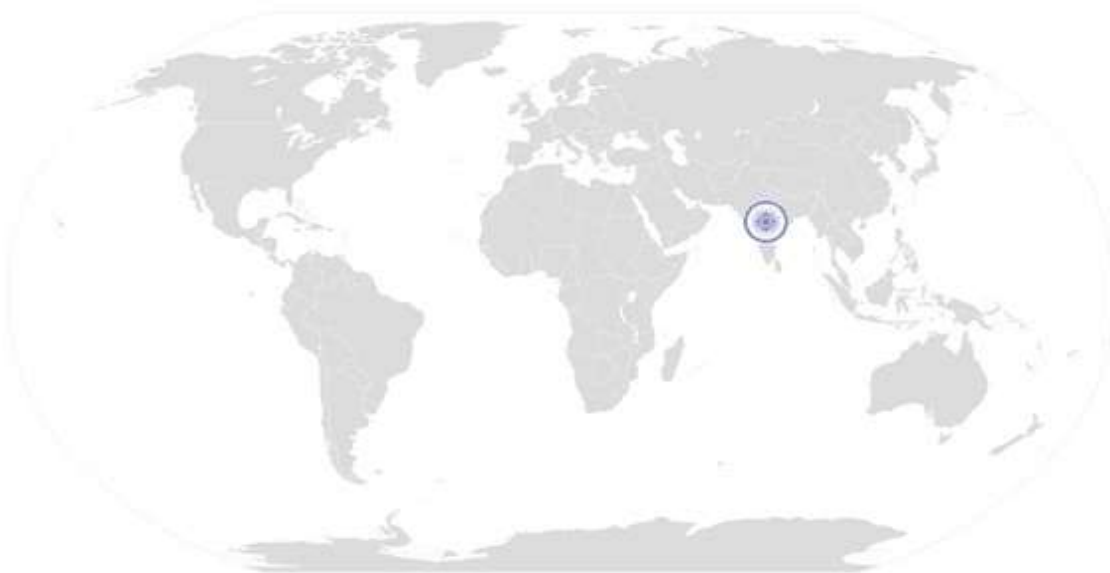
	Integrity
	The user/individual on the job needs to know and understand how to: SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , 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 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
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 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	Mixing	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>

To Carry Out Problem Identification And Escalation

	<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>

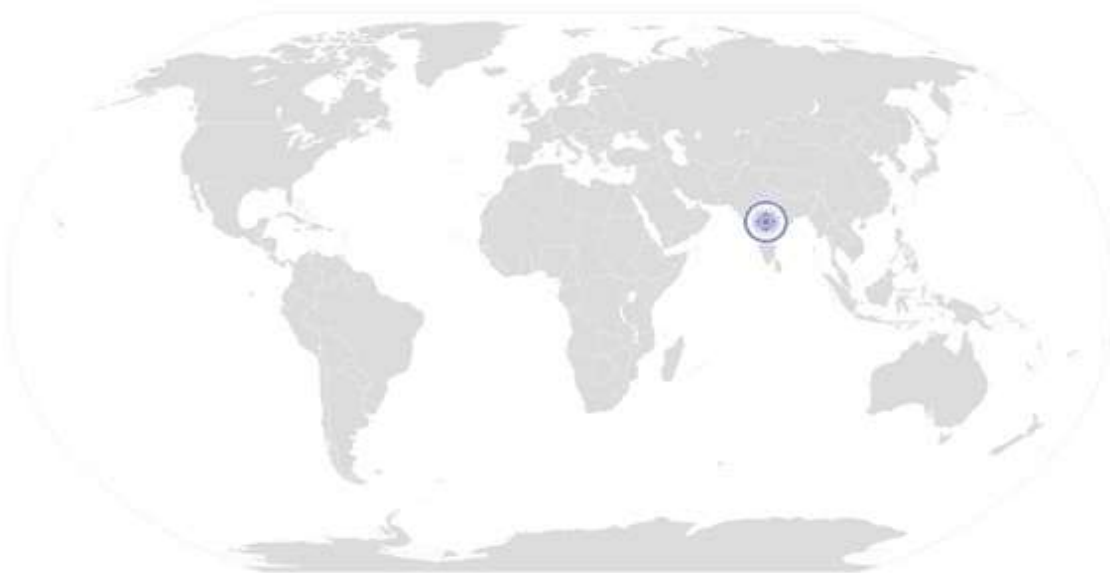
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	estimation and approximation, for practical purposes
	Reading and Understanding Skills
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards 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
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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	Mixing	Next review date	14/06/15


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CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Mixing Supervisor
Qualification Pack RSC/ Q 0111
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 0130 Supervise the preparatory activities for mixing	Equipment readiness	PC1. Ensure that all the equipments and machines are operational	1	0	1
		PC2. Ensure all tools required for the mixer area operations are readily available	1	0	1
		PC3. Ensure regular checks are conducted for machines for accuracy and readiness for operation	2	2	0
		PC4. Identify defective equipment and take action as per SOP	15	8	7

	PC5. Set pressure and other parameters; set mixing time and follow the sequence to make available different compound mix as per the requirement	15	8	7
	PC6. In case settings on automated mixer are set by technical associates, ensure operator doesn't fiddle with settings and follows only authorized settings	2	2	0
	PC7. Arrange to provide tools like mill knives , butcher knives masks, gloves ,rags etc. for workers before starting the mixing operation	2	0	2
	PC8. Ensure that all services such as steam, water ,electricity, etc are available at all times	2	2	0
	PC9. Comply with the maintenance schedule and ensure that maintenance programme of the mixer are carried out on regular basis	2	2	0
	PC10. Batch off mill gauge and proper cooling water flow .	2	0	2
	PC11. Roller die set up .	2	0	2
Raw Material Readiness	PC12. Check the material coming from raw material stores and confirm that it is as per the scheduler	2	2	0
	PC13. Ensure the receiving of correct material in mixing area i.e. the material has lab release ID tags or colour code marking	3	3	0
	PC14. Inspect the material carefully to detect torn bag, contaminated material etc. and report the same to the stores supervisor and his foreman before starting the mixing operation and arrange for replacement of affected material in case required	8	3	5
	PC4. Get the pigments /chemicals filled in the appropriate bins for facilitating weighing	2	2	0
	PC15. Ensure polymer bales or pre-cut and are kept near the put up conveyors for final weighing and charging into mixer when the mixing operation commences	2	0	2
	PC16. Ensure functioning of carbon black manual or auto feeders	7	4	3
	PC17. Ensure functioning of process oil manual or auto feeding units	7	4	3
	PC18. Ensure availability of slab dip or dip slurry for cooling and using as separating agents for mixed compound slabs/sheets	2	2	0
Manpower Readiness	PC19. Ensure that the manpower required for achieving the compound mix schedule are available.	2	2	0
	PC20. Arrange for the substitute in case of absenteeism of any team member due to any injury, accident, leave etc.	1	1	0

		PC21. Delegate the task and inform the team members well in time about the mixing schedule to be met in the given time frame	1	1	0
		PC22. Train the manpower for handling emergency situations	2	2	0
		PC23. Resolving issues (if any) among the team members before the commencement of mixing operations	2	2	0
	Health & Safety	PC24. Ensure that team members adhere to all safety norms (such as wearing protective gloves, masks, goggles and safety shoes).	4	2	2
		PC25. Manage first aid, general medication etc. of the team members	1	1	0
		PC26. Arrange for hospitalization in case of accident	1	1	0
		PC27. Ensure no tampering of safety ropes/switches/extinguishers/alarms fitted on the machines or mixer area	2	1	1
		PC28. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department	4	2	2
		PC29. 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 0131 Supervise mixing operations	Operation	PC1. Ensure that the operator follows the sequence of addition of ingredients and mixing instructions as per the authorized mixing instructions issued by technical (manually/through automated operations)	12	4	8
		PC2. Ensure that the operator follow the sequence to make available different compound mix as per the requirement	12	4	8
		PC3. Ensure mixers temperature/pressure/volume restrictions are respected and followed	10	6	4
		PC4. Ensure all laid out procedures/guidelines are in compliance	10	3	7
		PC5. Keep a check on cycle time (between one batch to another) to attain efficiency.	6	3	3
		PC6. Ensure no by pass/ short cutting of sequence in compound preparation	9	3	6
		PC7. Ensure adequate cooling of mixed compound before laying down on skids/pallets/ gondolas	7	3	4
		PC8. Avoid contamination while carrying out the mixing operation	9	4	5
		PC9. Ensure proper application of slab dip /dip slurry for facilitating the satcking of mixed compounds and its easy usage for next processing	8	2	6

		PC10. Ensure compliance of compounds dispositioned for work away through mixers respecting the directive	3	0	3
	Health & Safety	PC11. Ensure that team members adhere to all safety norms (such as wearing protective gloves, masks, goggles and safety shoes).	6	2	4
		PC12. Arrange for hospitalization in case of accident	1	1	0
		PC13. Manage first aid, general medication etc. of the team members	1	1	0
		PC14. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department	4	2	2
		PC15. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.	2	2	0
			100	40	60
RSC / N 0132 Conduct post-mixing supervisory operations	Batch Marking	PC1. Ensure identification and traceability by batch marking/coding for the compound as per the instructions laid down by the company.	11	6	5
	Sampling	PC2. Send sample of the prepared mix in the specified sample size and method as directed by the company	4	2	2
		PC3. Get the the mixed compound stored on designated skids/ gondolas/pallets with proper ID tags and hold until release tags in the allotted storage area .	5	2	3
		PC4. Ensure the storage is done to facilitate the FIFO	4	2	2
		PC5. Ensure compliance of FIFO by the user department	7	3	4
		PC6. Get the mixer properly clean and ready after completion of mixing operation	6	2	4
		PC7. On continuous operations, ensure mandatory cleaning procedures, as per instructions from Technical, between compound changes and at shift ends are complied with	6	2	4
		PC8. Manage to provide maintenance time for any repair and scheduled long maintenance of mixer/s	2	2	0
		PC9. Arrange to place DO NOT USE tag on compound having any defects; either hold it for any other use, reschedule its preparation,	6	2	4
		PC10. Arrange to reschedule the mixing of the affected compound urgently to keep the plant process on for smooth running	2	2	0
		PC11. Ensure the storage of master batch in mixing area only; release only the final batch for further processing.	2	2	0
		PC12. Send the defective/rejected material to hold area and keep the storage	6	4	2

		space free for OK material			
		PC13. Provide mixers on scheduled dates for Mixer inspections/ rotor clearance checks	6	4	2
	Record Maintenance and Reporting	PC14. Ensure all the mixing details are properly recorded in the forms/formats/log books/computers	8	2	6
		PC15. 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	2	2	0
		PC16. Paper /computer documents must be complete and traceable in all respect	2	2	0
		PC17. Records of the team members for work done, availability in shift, working hours etc	3	3	0
		PC18. Maintain inventory of mixed compounds	3	3	0
	Material Disposal	PC19 Ensure the held up compound is disposed off by technical.	3	3	0
		PC20. Ensure the action on disposition of off spec material is carried out promptly	1	1	0
	Health & Safety	PC21. Ensure that team members adhere to all safety norms (such as wearing protective gloves,masks, goggles and safety shoes).	1	1	0
		PC22. Arrange for hospitalization in case of accident	1	1	0
		PC23. Manage first aid, general medication etc. of the team members	1	1	0
		PC24. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department	6	4	2
		PC25. 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	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

And Documentati on	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
		PC8. Make sure documents are available to all appropriate authorities to inspect	6	4	2
	Information Security	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

