

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- Tyre Building Operator- Commercial Vehicles

SECTOR: RUBBER INDUSTRY

SUB-SECTOR: Tyre

OCCUPATION: Tyre Building

REFERENCE ID: RSC/ Q 0521

ALIGNED TO: NCO-2004/NIL

Brief Job Description: The tyre building operator –Commercial Vehicles is responsible for building the 2/3/4 wheeler commercial vehicle tyres.

Personal Attributes: This job requires the individual to have an eye for detail, work independently and be comfortable in performing laborious work. He should be willing to work under targets and must strive to achieve them on time with best quality.

Job Details	Qualifications Pack Code	RSC/ Q 0521		
	Job Role	Tyre Building Operator -Commercial Vehicles		
	Credits(NSQF)	TBD	Version number	1.0
	Sector	Rubber Industry	Drafted on	04/06/13
	Sub-sector	Tyre	Last reviewed on	29/12/15
	Occupation	Tyre Building	Next review date	29/12/17
	NSQC Cleanace on	20/07/2015		

Job Role	Tyre Building Operator -Commercial Vehicles
Role Description	The tyre building operator-Commercial vehicles is responsible for building the 2/3/4 wheeler commercial vehicle tyres
NSQF level	4
Minimum Educational Qualifications*	Class X
Maximum Educational Qualifications*	ITI/Graduate
Training (Suggested but not mandatory)	Training on operation of machinery
Minimum Job Entry Age	18 years
Experience	In lieu of minimum qualification the employee has worked as a semi-skilled helper for minimum 6 months in the same role.
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> RSC/ N2101 (Prepare Tyre Building Machine and collect components for bias tyre building) RSC/ N2102 (Build LCV/HCV/Tractor Commercial Vehicle Tyre) RSC/ N2103 (Post tyre building activities for commercial vehicle tyre) RSC/ N5001 (To carry out housekeeping) RSC/ N5002 (To carry out reporting and documentation) RSC/ N5003 (To carry out quality checks quality control) RSC/ N5004 (To carry out problem estimation and escalation) Optional: <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 preparing tyre building machine and collecting all tyre components for Bias Tyre Building

Prepare tyre building machine and collect components for Bias Tyre Building

National Occupational Standard	Unit Code	RSC/ N 2101
	Unit Title (Task)	Prepare tyre building machine and collect all components required for Bias Tyre Building
	Description	This unit is about preparing tyre building machine and collecting all tyre components for Bias Tyre Building
	Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Preparing tyre building machine • Collecting all components required for tyre building
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Criteria
	Equipment readiness	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Ensure that tyre building machine is clean</p> <p>PC2. Ensure that building drum is clean</p> <p>PC3. Ensure that building drum of the correct size is in place</p> <p>PC4. Follow equipment preparation process as per company requirements</p> <p>PC5. Ensure that no delays are caused as a result of improper preparation and failure to identify problems.</p> <p>PC6. Keep other building tools such as drum cement, hand stitcher, knife ready</p> <p>PC7. Ensure that all safety devices on the machine are properly functioning before start of the work.</p> <p>PC8. Ensure electrical panel door is in closed condition during working hours.</p> <p>PC9. Check guide lights for breaker and chaffer centering</p> <p>PC10. Ensure the stitching pressure (tread/ply) as per specification.</p>
	Raw material appropriateness	<p>PC11. Collect all materials required for the batch</p> <p>PC12. Match the batch code of each material with the batch code on the job schedule given by the planning department</p> <p>PC13. Ensure that components such as bead, tread, plies, freshening solvent, swab and hand stitcher etc. are ready</p> <p>PC14. Ensure that other materials are in the correct quantity</p> <p>PC15. Ensure, by visual inspection, that raw material is of desired quality (free of contamination etc.)</p> <p>PC16. Ensure that material to be fed is approved by laboratory</p> <p>PC17. Ensure that no delays are caused as a result of improper preparation and failure to identify problems</p> <p>PC18. Ensure that only identified and approved materials are used</p> <p>PC19. Ensure following FIFO</p>

Prepare tyre building machine and collect components for Bias Tyre Building

Health & Safety	<p>PC20. Ensure Housekeeping and Safety in Tyre Building area</p> <p>PC21. Do not wear loose and torn clothes during working hours</p> <p>PC22. Ensure no spillage of Naphtha or solvent</p> <p>PC23. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc.</p> <p>PC24. Ensure of of personal protective equipment like wearing protective gloves, safety shoes, Safety Glasses, safety mask etc)</p> <p>PC25. Adhere to all the other safety norms</p> <p>PC26. Comply with other health, safety, environment guidelines, regulations etc in accordance with company procedure</p> <p>PC27. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury.</p> <p>PC28. Ensure proper use of solvent</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Implications of poorly prepared equipment, power failure etc</p> <p>KA2. Importance of identifying non-conforming material and storage of the same</p> <p>KA3. Risk and impact of not following defined procedures/work instructions</p> <p>KA4. Escalation matrix for reporting identified problems</p> <p>KA5. Types of documentation in organization and importance of the same</p> <p>KA6. Records to be maintained and implications of non-maintenance of the same</p> <p>KA7. Importance of housekeeping</p> <p>KA8. Health, Safety and Environment guidelines, legislation and regulations as applicable</p> <p>KA9. Personal protection (which protective equipment to be used and how)</p> <p>KA10. Impact of poor practices on health, safety and environment</p> <p>KA11. Potential hazards and actions to minimize the same</p> <p>KA12. Escalation matrix and escalation procedure for reporting hazards</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Importance of various components (like bead, ply, tread, sidewall etc) on subsequent process and performance of the product.</p> <p>KB2. Importance of process parameters (time, temperature, pressure, humidity etc) and their impact</p> <p>KB3. Ability to take measurement using gauges and balance (for thickness, width and weight)</p> <p>KB4. Effect of improper tyre building on performance of tyre</p> <p>KB5. Implications of delays in preparation process</p> <p>KB6. Types of defects leading to rejections.</p> <p>KB7. Potential problems in preparation process</p> <p>KB8. Indicators and reasons of potential problems</p> <p>KB9. Appropriate solutions to the problems encountered</p>

Prepare tyre building machine and collect components for Bias Tyre Building

	<p>KB10.Cleanliness and safety requirements for commencing a tyre building operation KB11.Health hazards due to inhalation of solvent KB12.Fire hazards due to flammable solvent KB13.The role of protective railing, light barriers, safety mats and scanners which KB14. are present for the protection of operator and complete tyre building KB15. machinery. KB16.Units of measurement KB17.Response to emergencies e.g. Power failures ,fire and system failures KB18.The usage of different fire extinguishers</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 SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p>
	Reading 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 SA6. Read images, graphs, diagrams 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 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)</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 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 SA16. Take responsibility for completing one’s own work assignment SA17. Take initiative to enhance/learn skills in ones’s area of work</p>

Prepare tyre building machine and collect components for Bias Tyre Building

	<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> <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>
<p>B. Professional Skills</p>	<p>Decision Making</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.</p> <p>SB2. Handle internal mixer, accessories</p> <p>SB3. Handle rubber compound</p> <p>SB4. Handle chemicals</p> <p>SB5. Handling of various types of material handling equipment like forklifts, trolleys</p> <p>SB6. 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>Plan and Organize</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. seek clarification on problems from others</p> <p>SB8. apply problem-solving approaches in different situations</p> <p>SB9. refer anomalies to the line manager</p>
	<p>Customer Centricity</p>
	<p>NA</p>
	<p>Problem Solving</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB 10. Interpret quality for sheet</p> <p>SB 11 . Suggest improvements(if any) in process/product/materials based on results and experience</p>
	<p>Analytical Thinking</p>
<p>The user/individual on the job needs to know and understand how to:</p> <p>SB 12. Diagnose common problems in the machine based on visual inspection, sound , temperature etc</p> <p>SB 13. Suggest improvements(if any) in process based on experience</p>	
<p>Critical Thinking</p>	

RSC/ N 2101

Prepare tyre building machine and collect components for Bias Tyre Building

	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none">SB14. Handle equipment/rubber sheet SB6. seek clarification on problems from othersSB15. apply problem-solving approaches in different situationsSB16. refer anomalies to the line manager
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Prepare tyre building machine and collect components for Bias Tyre Building

NOS Version Control

NOS Code	RSC / N 2101		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/13
Industry Sub-sector	Tyre	Last reviewed on	29/12/15
Occupation	Tyre Building	Next review date	29/12/17



National Occupational Standard



Overview

This unit is about building a 2/3/4 wheeler bias commercial vehicle tyre

National Occupational Standard	Unit Code	RSC / N 2102
	Unit Title (Task)	Build LCV/HCV/Tractor Commercial Vehicle Tyre
	Description	This unit is about building 2/3/4 wheeler passenger vehicle tyre
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Building 2/3/4 wheeler bias passenger vehicle tyre
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Criteria
	Raw material appropriateness	To be competent, the user/individual on the job must be able to : <p>PC1. Ensure, by visual inspection, that tyre building material is of desired quality (free of contamination etc.)</p> <p>PC2. Ensure that batch size of tyre building material is as per specified quantity</p>
Operation	<p>PC3. Plan batch sequence in shifts based on raw material availability/rejection to maximize output</p> <p>PC4. Apply drum cement on building drum, if necessary</p> <p>PC5. Apply pre- built 1st band followed by 2nd Band and so on as per tyre size and PR</p> <p>PC6. Apply 3rd band and do turn down operation.</p> <p>PC7. Apply Breaker on the top of the band</p> <p>PC8. Apply Bead, numbers and construction as per tyre size and PR, which are placed on bead holder on both side of the drum, with pressure by movement of the holders.</p> <p>PC9. Apply ply turn-up & turn-down stitchers are applied before & after applying bead</p> <p>PC10. Apply chafer on both ends / edges of the green tyre</p> <p>PC11. Apply Tread on the top</p> <p>PC12. Rotate drum at controlled speed, freshen surface and apply stitchers as per process requirement during the building process</p> <p>PC13. Apply centre line marking is on the top of tread</p> <p>PC14. Ensure that material wastage is within tolerance limits</p> <p>PC15. Ensure that no rework or rejection is generated.</p> <p>PC16. Match the quality of output to company's product requirements</p> <p>PC17. Meet production quantity targets set for the operation</p> <p>PC18. Follow work instructions as laid down by the company</p>	

Build LCV/HCV/Tractor Commercial Vehicle Tyre

<p>Health & Safety</p>	<p>PC19. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury.</p> <p>PC20. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc.</p> <p>PC21. Ensure that he wears safety shoes while handling tyres so that accidental slippages do not crush the foot of the user.</p> <p>PC22. Ensure that he wears proper protective equipment while handling the hot knife to cut joints.</p> <p>PC23. Ensure that he wears protective equipment like mask to avoid inhalation of solvent vapor</p> <p>PC24. Adhere to all the other safety norms (like wearing protective gloves etc)</p> <p>PC25. Comply with other health, safety, environment guidelines, regulations etc in accordance with company procedure</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. Proper tyre building process</p> <p>KA2. Implications of poorly prepared equipment, power failure etc</p> <p>KA3. Material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure</p> <p>KA4. Quality and damage checks to be done and importance of the same</p> <p>KA5. Importance of identifying non-conforming material and storage of the same</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 implications of non-maintenance of the same</p> <p>KA10. Importance of housekeeping</p> <p>KA11. Health, Safety and Environment guidelines, legislation and regulations as applicable</p> <p>KA12. Personal 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 the same</p> <p>KA15. Escalation matrix and escalation procedure for reporting hazards</p>

B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Different types of Tyre Building Machine (TBM) & its operation</p> <p>KB2. Importance of process parameters (time, temperature, pressure, humidity etc) and impact</p> <p>KB3. Importance of various components (like bead, ply, tread, sidewall etc) on subsequent process and performance of the product</p> <p>KB1. Ability to take measurement using gauges and balance (for thickness, width and weight)</p> <p>KB2. Troubleshooting- Knowledge of abnormalities and what response to make in case of abnormalities in equipment performance</p> <p>KB3. Cleanliness and safety requirements for commencing a tyre building operation</p> <p>KB4. The role of protective railing, light barriers, safety mats and scanners which are present for the protection of operator and complete tyre building machinery.</p> <p>KB5. Health hazard due to inhalation of solvent</p> <p>KB6. Fire hazard due to flammable solvent</p> <p>KB7. Sequence of laying the ply and building the tyre</p> <p>KB8. Implications of not adhering to sequence of activities and operations</p> <p>KB9. Implications of delays in production process</p> <p>KB10. The process and importance of quality check ,including visual inspection and dimensional checks</p> <p>KB11. Effect of improper tyre building on performance of tyre</p> <p>KB12. Types of defects leading to rejections.</p> <p>KB13. Potential problems in the tyre building operation</p> <p>KB14. Indicators and reasons of potential problems</p> <p>KB15. Appropriate solutions to the problems encountered</p> <p>KB16. Units of measurement</p> <p>KB17. Response to emergencies e.g. Power failures ,fire and system failures</p> <p>KB18. The usage of different fire extinguishers</p>
Skills (S)	
A. Core Skills/ Generic Skills	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p> <p>Reading Skills</p>

	<p>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>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> <p>SA16. Take responsibility for completing one's own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in one'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> <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>
<p>B. Professional Skills</p>	<p>Decision Making</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.</p> <p>SB8. Handle internal mixer, accessories</p> <p>SB9. Handle rubber compound</p> <p>SB10. Handle chemicals</p> <p>SB11. Handling of various types of material handling equipment like</p>

	<p>forklifts, trolleys</p> <p>SB12. 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>Plan and Organize</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. seek clarification on problems from others</p> <p>SB8. apply problem-solving approaches in different situations</p> <p>SB9. refer anomalies to the line manager</p>
	<p>Customer Centricity</p>
	<p>NA</p>
	<p>Problem Solving</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB 10. Interpret quality for sheet</p> <p>SB 11 . Suggest improvements(if any) in process/product/materials based on results and experience</p>
	<p>Analytical Thinking</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB 12. Diagnose common problems in the machine based on visual inspection, sound , temperature etc</p> <p>SB 13. Suggest improvements(if any) in process based on experience</p>
	<p>Critical Thinking</p>
<p>The user/individual on the job needs to know and understand how to:</p> <p>SB14. Handle equipment/rubber sheet SB6. seek clarification on problems from others</p> <p>SB15. apply problem-solving approaches in different situations</p> <p>SB16. refer anomalies to the line manager</p>	

NOS Version Control

NOS Code	RSC / N 2102		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/13
Industry Sub-sector	Tyre	Last reviewed on	29/12/15
Occupation	Tyre Building	Next review date	29/12/17



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National Occupational Standard



Overview

This unit is about performing post tyre building activities for commercial vehicle tyres

Unit Code	RSC / N 2103
Unit Title (Task)	Post tyre building activities for commercial vehicle tyres
Description	This unit is about performing post tyre building activities for commercial vehicle tyres
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> Collecting green tyre/number marking Preparing tyre for painting/curing Transporting tyre to painting/curing department
Performance Criteria (PC) w.r.t. the Scope	
Element	Criteria
Operation	<p>To be competent, the user/individual on the job must be able to</p> <p>PC1. Follow work instructions as laid down by the company</p> <p>PC2. Remove green tyre from the TBM and put on a trolley</p> <p>PC3. Transport tyre to painting section</p> <p>PC4. Spray paint tyre from inside and outside and dry in a hot chamber and allow to cool for definite time</p> <p>PC5. Remove tyre and transport to curing section for tyre curing</p> <p>PC6. Visually inspect tyre for defects</p> <p>PC7. Handover the equipment to the next operator in clean and good condition</p>
Material disposal	<p>PC8. Dispose off waste material as per waste disposal procedures laid down by the company</p> <p>PC9. Carry out disposal of waste material safely as per SOP</p>
Batch Marking	PC10. Carry out tyre marking as per instructions laid down by the company (in terms of size, weight, colour etc).
Sampling	<p>PC11. Send sample of specified product/batch number to lab for testing, if warranted</p> <p>PC12. Send sample in specified quantity to lab for testing</p> <p>PC13. Send sample in the specified form to lab for testing</p> <p>PC14. Send the remaining material to the designated storage area</p>
Health & Safety	<p>PC15. Ensure Housekeeping and Safety in Tyre Building area</p> <p>PC16. Do not wear loose and torn clothes during working hours</p> <p>PC17. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury.</p> <p>PC18. Ensure use of personal protective equipment like wearing protective gloves, safety shoes, Safety Glasses, safety mask etc)</p>

Post tyre building activities for commercial vehicle tyres

	<p>PC19. Spray paint the tyre safely by using protective equipment to cover the face and other body parts</p> <p>PC20. Comply with other health, safety, environment guidelines, regulations etc in accordance with company procedure</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 poorly prepared equipment, power failure etc</p> <p>KA2. Material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure</p> <p>KA3. Significance of tyre marking</p> <p>KA4. Importance of identifying non-conforming product and storage of the same</p> <p>KA5. Risk and impact of not following defined procedures/work instructions</p> <p>KA6. Escalation matrix and procedure for reporting identified problems</p> <p>KA7. Types of documentation in organization and importance of the same</p> <p>KA8. Records to be maintained and implications of non-maintenance of the same</p> <p>KA9. Importance of housekeeping</p> <p>KA10. Health, Safety and Environment guidelines, legislation and regulations as applicable</p> <p>KA11. Personal protection(Which protective equipment to be used and how)</p> <p>KA12. Potential hazards and actions to minimize the same</p> <p>KA13. Impact of poor practices on health, safety and environment</p> <p>KA14. Escalation matrix and procedure for reporting hazards</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Importance of various components (like bead, ply, tread, sidewall etc) on subsequent process and performance of the product.</p> <p>KB2. Spray painting process for bias tyres.</p> <p>KB3. Implications of improper curing on bias tyres</p> <p>KB4. Batch marking techniques</p> <p>KB5. Implications of incorrect tyre marking</p> <p>KB6. Implications of inappropriate waste disposal</p> <p>KB7. Type of defects leading to rejections.</p> <p>KB8. Indicators and reasons of problems encountered</p> <p>KB9. Units of measurement</p> <p>KB10. Colour and colour coding</p> <p>KB11. Responding to emergencies e.g. Power failures ,fire and system failures</p> <p>KB12. Use of instruments to check dimensions etc</p> <p>KB13. The usage of different fire extinguishers</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</p>

Post tyre building activities for commercial vehicle tyres

	<p>communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p>
	<p>Reading Skills</p> <p>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 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>SA16. Take responsibility for completing one's own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in one'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>
	<p>Reliability</p>

Post tyre building activities for commercial vehicle tyres

	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none">SA21. Avoid absenteeismSA22. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situationsSA23. Work in disciplined factory environmentSA24. Be punctual
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Post tyre building activities for commercial vehicle tyres

NOS Version Control

NOS Code	RSC / N 2103		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/13
Industry Sub-sector	Tyre	Last reviewed on	29/12/15
Occupation	Tyre Building	Next review date	29/12/17



National Occupational Standard



Overview

This unit is about carrying out housekeeping

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> <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>B. 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>
<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>

To carry out housekeeping

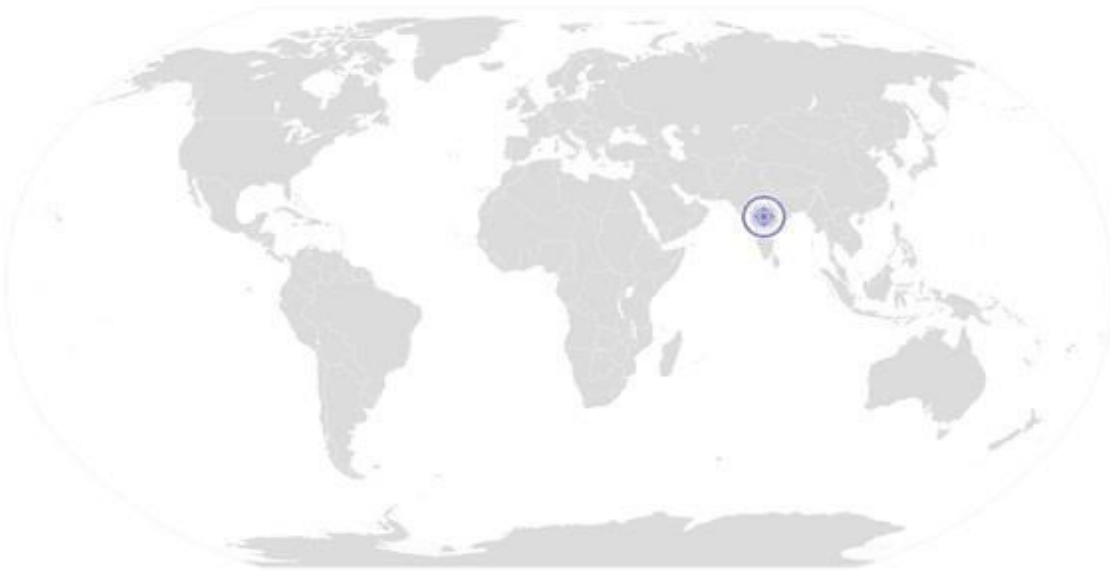
	<p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such 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> <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> <p>SA16. Take responsibility for completing one's own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in one'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> <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>
	Decision Making

To carry out housekeeping

A. Professional Skills	The user/individual on the job needs to know and understand how to: SB13. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.
	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB7. seek clarification on problems from others SB8. apply problem-solving approaches in different situations SB9. refer anomalies to the line manager
	Customer Centricity
	NA
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB 10. Interpret quality for sheet SB 11 . Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB 12. Diagnose common problems in the machine based on visual inspection, sound , temperature etc SB 13. Suggest improvements(if any) in process based on experience
	Critical Thinking
The user/individual on the job needs to know and understand how to: SB14. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB15. apply problem-solving approaches in different situations SB16. refer anomalies to the line manager	

NOS Version Control

NOS Code	RSC / N 5001		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/13
Industry Sub-sector	Tyre and Non- tyre	Last reviewed on	29/12/15
Occupation	Tyre Building	Next review date	29/12/17



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>

To carry out reporting and documentation

	<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> <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>	

To carry out reporting and documentation

	<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> <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> <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>
<p>B. Professional Skills</p>	<p>Decision Making</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.</p>
	<p>Plan and Organize</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB2. seek clarification on problems from others</p> <p>SB3. apply problem-solving approaches in different situations</p> <p>SB4. refer anomalies to the line manager</p>
	<p>Customer Centricity</p>
	<p>NA</p>
	<p>Problem Solving</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB 5. Interpret quality for sheet</p> <p>SB 6 . Suggest improvements(if any) in process/product/materials based on results and experience</p>
<p>Analytical Thinking</p>	

To carry out reporting and documentation

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. Proper collection of waste material</p> <p>SB8. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience</p>
	<p>Critical Thinking</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. Handle equipment/rubber sheet SB6. seek clarification on problems from others</p> <p>SB10. apply problem-solving approaches in different situations</p> <p>SB11. refer anomalies to the line manager</p>



NOS Version Control

NOS Code	RSC / N 5002		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/13
Industry Sub-sector	Tyre and Non- tyre	Last reviewed on	29/12/15
Occupation	Tyre Building	Next review date	29/12/17



National Occupational Standard



Overview

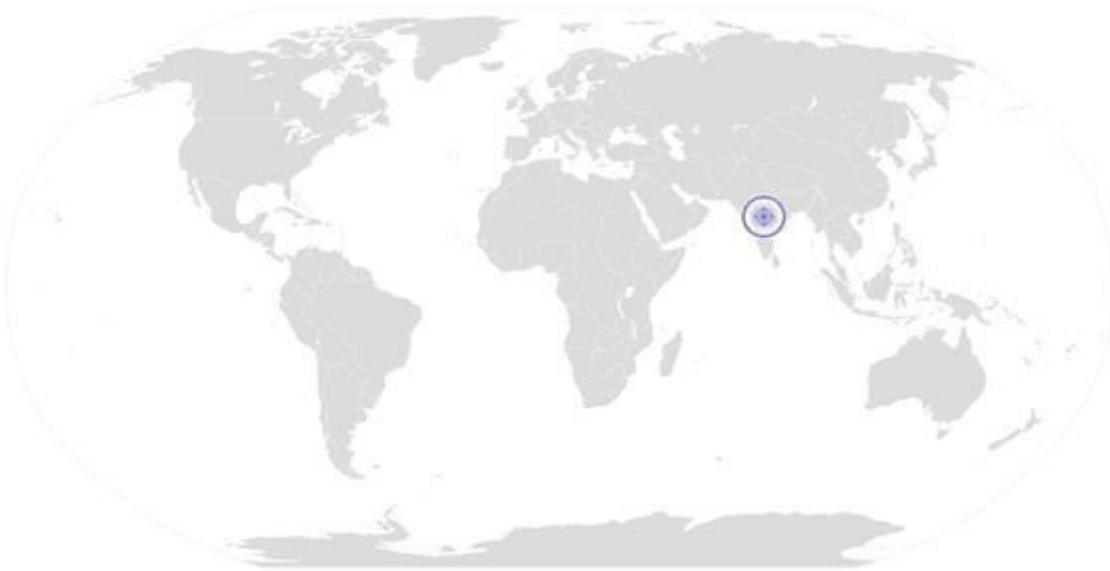
This unit is about carrying out quality checks

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 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 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> <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> <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> <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>
B. Professional Skills	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.</p>
	Plan and Organize
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB2. seek clarification on problems from others</p> <p>SB3. apply problem-solving approaches in different situations</p> <p>SB4. refer anomalies to the line manager</p>
	Customer Centricity
	<p>NA</p>
	Problem Solving
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB 5. Interpret quality for sheet</p> <p>SB 6 . Suggest improvements(if any) in process/product/materials based on results and experience</p>
Analytical Thinking	
<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. Proper collection of waste material</p>	

	SB8. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB9. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB10. apply problem-solving approaches in different situations SB11. refer anomalies to the line manager



NOS Version Control

NOS Code	RSC / N 5003		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/13
Industry Sub-sector	Tyre and Non- tyre	Last reviewed on	29/12/15
Occupation	Tyre Building	Next review date	29/12/17



To carry out problem identification and escalation

National Occupational Standard



Overview

This unit is about problem identification and escalation

National Occupational Standard	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>	

To carry out problem identification and escalation

	<p>PC16. Evaluate implementation of corrective action taken to determine if the 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>
Problem Escalation	<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>
Knowledge and Understanding (K)	
B. Technical Knowledge	<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>
Skills (S)	
A. Core Skills/ Generic Skills	<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 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) 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 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. SA21. Avoid absenteeism SA22. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials and finished goods.

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	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB2. seek clarification on problems from others SB3. apply problem-solving approaches in different situations SB4. refer anomalies to the line manager
	Customer Centricity
	NA
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB 5. Interpret quality for sheet SB 6 . Suggest improvements(if any) in process/product/materials based on results and experience
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB7. Proper collection of waste material SB8. Identify defects in the material and communicate it at the earliest and suggest improvements(if any) in process/material based on experience
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB9. Handle equipment/rubber sheet SB6. seek clarification on problems from others SB10. apply problem-solving approaches in different situations SB11. refer anomalies to the line manager

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NOS Version Control

NOS Code	RSC / N 5004		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/13
Industry Sub-sector	Tyre and NonTyre	Last reviewed on	29/12/15
Occupation	Tyre Building	Next review date	29/12/17



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CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role : Tyre Building Operator - Commercial Vehicles

Qualification Pack Code: RSC/ Q 0521

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

Assessment Strategy		Marks Allocation		
NOS	Performance Criteria	Total	Theory	Practical
1. RSC/ N2101 (Prepare Tyre Building Machine and collect components for bias tyre building)	PC1. Ensure that tyre building machine is clean	2	2	0
	PC2. Ensure that building drum is clean	2	2	0
	PC3. Ensure that building drum of the correct size is in place	2	2	0
	PC4. Follow equipment preparation process as per company requirements	8	2	6
	PC5. Ensure that no delays are caused as a result of improper preparation and failure to identify problems.	2	2	0
	PC6. Keep other building tools such as drum cement, hand stitcher, knife ready	8	2	6
	PC7. Ensure that all safety devices on the machine are properly functioning before start of the work.	8	2	6
	PC8. Ensure electrical panel door is in closed condition during working hours.	8	2	6
	PC9. Check guide lights for breaker and chaffer centering	8	2	6
	PC10. Ensure the stitching pressure (tread/ply) as per specification.	8	2	6
	PC11. Collect all materials required for the batch	2	2	0
	PC12. Match the batch code of each material with the batch code on the job schedule given by the planning department	2	2	0
	PC13. Ensure that components such as bead, tread, plies, freshening solvent, swab and hand stitcher etc. are ready	7	1	6
	PC14. Ensure that other materials are in the correct quantity	1	1	0

	PC15. Ensure, by visual inspection, that raw material is of desired quality (free of contamination etc.)	1	1	0
	PC16. Ensure that material to be fed is approved by laboratory	1	1	0
	PC17. Ensure that no delays are caused as a result of improper preparation and failure to identify problems	1	1	0
	PC18. Ensure that only identified and approved materials are used	7	1	6
	PC19. Ensure following FIFO	7	1	6
	PC20. Ensure Housekeeping and Safety in Tyre Building area	1	1	0
	PC21. Do not wear loose and torn clothes during working hours	1	1	0
	PC22. Ensure no spillage of Naphtha or solvent	1	1	0
	PC23. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc.	1	1	0
	PC24. Ensure of of personal protective equipment like wearing protective gloves, safety shoes, Safety Glasses, safety mask etc)	7	1	6
	PC25. Adhere to all the other safety norms	1	1	0
	PC26. Comply with other health, safety, environment guidelines, regulations etc in accordance with company procedure	1	1	0
	PC27. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury.	1	1	0
	PC28. Ensure proper use of solvent	1	1	0
		100	40	60
2. RSC/ N2102 (Build LCV/HCV/Tractor Commercial Vehicle Tyre)	PC1. Ensure, by visual inspection, that tyre building material is of desired quality (free of contamination etc.)	2	2	0
	PC2. Ensure that batch size of tyre building material is as per specified quantity	2	2	0
	PC3. Plan batch sequence in shifts based on raw material availability/rejection to maximize output	2	2	0
	PC4. Apply drum cement on building drum, if necessary	7	2	5
	PC5. Apply pre- built 1st band followed by 2nd Band and so on as per tyre size and PR	7	2	5
	PC6. Apply 3rd band and do turn down operation.	7	2	5
	PC7. Apply Breaker on the top of the band	7	2	5
	PC8. Apply Bead, numbers and construction as per tyre size and PR, which are placed on bead holder on both side of the drum, with pressure by movement of the holders.	7	2	5
	PC9. Apply ply turn-up & turn-down stitchers are applied before & after applying bead	7	2	5
	PC10. Apply chafer on both ends / edges of the green tyre	7	2	5
	PC11. Apply Tread on the top	7	2	5

	PC12. Rotate drum at controlled speed, freshen surface and apply stitchers as per process requirement during the building process	7	2	5
	PC13. Apply centre line marking is on the top of tread	7	2	5
	PC14. Ensure that material wastage is within tolerance limits	2	2	0
	PC15. Ensure that no rework or rejection is generated.	2	2	0
	PC16. Match the quality of output to company's product requirements	1	1	0
	PC17. Meet production quantity targets set for the operation	1	1	0
	PC18. Follow work instructions as laid down by the company	1	1	0
	PC19. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury.	1	1	0
	PC20. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc.	1	1	0
	PC21. Ensure that he wears safety shoes while handling tyres so that accidental slippages do not crush the foot of the user.	1	1	0
	PC22. Ensure that he wears proper protective equipment while handling the hot knife to cut joints.	6	1	5
	PC23. Ensure that he wears protective equipment like mask to avoid inhalation of solvent vapor	6	1	5
	PC24. Adhere to all the other safety norms (like wearing protective gloves etc)	1	1	0
	PC25. Comply with other health, safety, environment guidelines, regulations etc in accordance with company procedure	1	1	0
		100	40	60
3. RSC/ N2103 (Post tyre building activities for commercial vehicle tyre)	PC1. Follow work instructions as laid down by the company	3	3	0
	PC2. Remove green tyre from the TBM and put on a trolley	11	3	8
	PC3. Transport tyre to painting section	11	3	8
	PC4. Spray paint tyre from inside and outside and dry in a hot chamber and allow to cool for definite time	11	3	8
	PC5. Remove tyre and transport to curing section for tyre curing	11	3	8
	PC6. Visually inspect tyre for defects	3	3	0
	PC7. Handover the equipment to the next operator in clean and good condition	3	3	0
	PC8. Dispose off waste material as per waste disposal procedures laid down by the company	3	3	0
	PC9. Carry out disposal of waste material safely as per SOP	3	3	0
	PC10. Carry out tyre marking as per instructions laid down by the company (in terms of size, weight, colour etc).	11	3	8
	PC11. Send sample of specified product/batch number to lab for testing, if warranted	3	3	0

	PC12. Send sample in specified quantity to lab for testing	3	3	0
	PC13. Send sample in the specified form to lab for testing	3	3	0
	PC14. Send the remaining material to the designated storage area	3	3	0
	PC15. Ensure Housekeeping and Safety in Tyre Building area	3	3	0
	PC16. Do not wear loose and torn clothes during working hours	2	2	0
	PC17. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury.	2	2	0
	PC18. Ensure of of personal protective equipment like wearing protective gloves, safety shoes, Safety Glasses, safety mask etc)	7	2	5
	PC19. Spray paint the tyre safely by using protective equipment to cover the face and other body parts	2	2	0
	PC20. Comply with other health, safety, environment guidelines, regulations etc in accordance with company procedure	2	2	0
		100	55	45
4. RSC/ N5001 (To carry out housekeeping)	PC1. Inspect the area while taking into account various surfaces	4	4	0
	PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain	4	4	0
	PC3. Ensure that the cleaning equipment is in proper working condition	4	4	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	4	4	0
	PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces	4	4	0
	PC6. Inform the affected people about the cleaning activity	4	4	0
	PC7. Display the appropriate signage for the work being conducted	4	4	0
	PC8. Ensure that there is adequate ventilation for the work being carried out	4	4	0
	PC9. Wear the personal protective equipment required for the cleaning method and materials being used	14	4	10
	PC10. Use the correct cleaning method for the work area, type of soiling and surface	4	4	0
	PC11. Carry out cleaning activity without disturbing others	4	4	0
	PC12. Deal with accidental damage, if any, caused while carrying out the work	4	4	0
	PC13. Report to the appropriate person any difficulties in carrying out your work	4	4	0
	PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's	4	4	0

	responsibility or skill			
	PC15. Ensure that there is no oily substance on the floor to avoid slippage	4	4	0
	PC16. Ensure that no scrap material is lying around	4	4	0
	PC17. Maintain and store housekeeping equipment and supplies	4	4	0
	PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process	4	4	0
	PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements	3	3	0
	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	3	3	0
	PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly	3	3	0
	PC23. Maintain schedules and records for housekeeping duty	3	3	0
	PC24. Replenish any necessary supplies or consumables	3	3	0
		100	90	10
5. RSC/ N5002 (To carry out reporting and documentation)	PC1. Report data/problems/incidents as applicable in a timely manner	17	7	10
	PC2. Report to the appropriate authority as laid down by the company	17	7	10
	PC3. Follow reporting procedures as prescribed by the company	17	7	10
	PC4. Identify documentation to be completed relating to one's role	7	7	0
	PC5. Record details accurately an appropriate format	17	7	10
	PC6. Complete all documentation within stipulated time according to company procedure	5	5	0
	PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly	5	5	0
	PC8. Make sure documents are available to all appropriate authorities to inspect	5	5	0
	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures	5	5	0
	PC10. Inform the appropriate authority of requests for information received	5	5	0
		100	60	40
6. RSC/ N5003 (To carry out quality checks)	PC1. Ensure that total range of checks are regularly and consistently performed	15	5	10
	PC2. Use appropriate measuring instruments, equipment,	15	5	10

	tools, accessories etc ,as required			
	PC3. Identify non-conformities to quality assurance standards	8	5	3
	PC4. Identify potential causes of non-conformities to quality assurance standards	8	5	3
	PC5. Identify impact on final product due to non-conformance to company standards	8	5	3
	PC6. Evaluating the need for action to ensure that problems do not recur	4	4	0
	PC7. Suggest corrective action to address problem	7	4	3
	PC8. Review effectiveness of corrective action	4	4	0
	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.	4	4	0
	PC11. Take up the results of the findings within stipulated time	4	4	0
	PC12. Record of results of action taken	4	4	0
	PC13. Record adjustments not covered by established procedures for future reference	4	4	0
	PC14. Review effectiveness of action taken	4	4	0
	PC15. Follow reporting procedures where the cause of defect cannot be identified	7	4	3
		100	65	35
7. RSC/ N5004 (To carry out problem identification and escalation)	PC1. Identify defects/indicators of problems	5	3	2
	PC2. Identify any wrong practices that may lead to problems	3	3	0
	PC3. Identify practices that may impact the final product quality	3	3	0
	PC4. Identify if the problem has occurred before	3	3	0
	PC5. Identify other operations that might be impacted by the problem	3	3	0
	PC6. Ensure that no delays are caused as a result of failure to escalate problems	5	3	2
	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)	3	3	0
	PC8. Consider possible reasons for identification of problems	3	3	0
	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	5	3	2
	PC12. Take corrective action in a timely manner	5	3	2
	PC13. Take corrective action for problems identified according to the company procedures	5	3	2
	PC14. Report/document problem and corrective action in an	5	3	2

appropriate manner			
PC15. Monitor corrective action	3	3	0
PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved	5	3	2
PC17. Ensure that corrective action selected is viable and practical	5	3	2
PC18. Ensure that correct solution is identified to an identified problem	5	3	2
PC19. Take corrective action for problems identified according to the company procedures	5	3	2
PC20. Ensure that no delays are caused as a result of failure to take necessary action	5	3	2
PC21. Escalate problem as per laid down escalation matrix	5	3	2
PC22. Escalate the problem within stipulated time	5	3	2
PC23. Escalate the problem in an appropriate manner	4	2	2
PC24. Ensure that no delays are caused as a result of failure to escalate problems	4	2	2
	100	70	30