





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
- 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-Passenger Vehicles

SECTOR: RUBBER INDUSTRY

SUB-SECTOR: Tyre

OCCUPATION: Tyre Building Operator-Passenger Vehicles

REFERENCE ID: RSC/ Q 0519

ALIGNED TO: NCO-2004/NIL

Brief Job Description: The tyre building operator- Passenger Vehicles is

responsible for building the 2/3/4 wheeler passenger 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.







Qualifications Pack Code	RSC/ Q 0519		
Job Role	Tyre building operator- Passenger 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 Clearnace on	20/07/2015		

Job Role	Tyre building operator- Passenger Vehicles	
Role Description	The tyre building operator-Passenger Vehicles is responsible for building the 2/3/4 wheeler passenger vehicle tyres	
NSQF level	4	
Minimum Educational Qualifications*	Class X ITI/Graduate	
Maximum Educational Qualifications*		
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: RSC/ N1901 (Prepare tyre building machine and collect all components required for Bias Tyre Building) RSC/ N1902 (Build 2/3/4 wheeler passenger vehicle tyre) RSC/ N1903 (Post tyre building activities for passenger vehicle tyres) RSC/ N5001 (To carry out housekeeping) RSC/ N5002 (To carry out reporting and documentation) RSC/ N5003 (To carry out quality checks) RSC/ N5004 (To carry out problem identification and escalation) Optional:	
Performance Criteria	8. NA As described in the relevant OS units	



Qualifications Pack For Tyre building operator





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.		









Prepare tyre building machine and collect all components required for Tyre Building

National Occupational Standard



Overview

This unit is about preparing tyre building machine and collecting all tyre components for Bias Tyre Building









Unit Code	RSC / N 1901		
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	This unit/task covers the following: • Preparing tyre building machine		
	Collecting all components required for tyre building		
Performance Criteria (PC) w.r.t. the Scope		
Element	Criteria		
Equipment readiness	To be competent, the user/individual on the job must be able to: PC1. Ensure that tyre building machine is clean PC2. Ensure that building drum is clean PC3. Ensure that building drum of the correct size is in place PC4. Follow equipment preparation process as per company requirements PC5. Ensure that no delays are caused as a result of improper preparation and failure to identify problems. PC6. Keep other building tools such as drum cement, hand stitcher, knife ready PC7. Ensure that all safety devices on the machine are properly functioning before start of the work. PC8. Ensure electrical panel door is in closed condition during working hours. PC9. Check guide lights for breaker and chaffer centering PC10. Ensure the stitching pressure (tread/ply) as per specification.		
Raw material appropriateness	PC11. Collect all materials required for the batch PC12. Match the batch code of each material with the batch code on the job schedule given by the planning department PC13. Ensure that components such as bead, tread, plies, freshening solvent, swab and hand stitcher etc. are ready PC14. Ensure that other materials are in the correct quantity PC15. Ensure, by visual inspection, that raw material is of desired quality (free of contamination etc.) PC16. Ensure that material to be fed is approved by laboratory PC17. Ensure that no delays are caused as a result of improper preparation and failure to identify problems PC18. Ensure that only identified and approved materials are used PC19. Ensure following FIFO		









PC20. Ensure Housekeeping and Safety in Tyre Building area

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









	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
	are present for the protection of operator and complete tyre building
	machinery.
	KB14. Units of measurement
	KB15. Response to emergencies e.g. Power failures ,fire and system failures
	KB16. The usage of different fire extinguishers
Skills (S)	
	Writing Skills
	The user/ individual on the job needs to know and understand how to:
	SA1. Construct simple sentences and express ideas clearly through written
	communication
	SA2. Fill up appropriate technical forms, process charts, activity logs in required
	format of the company
	SA3. Write simple letters, mails, etc
	SA4. Perform functional mathematical operations, including apply basic
	mathematical principles, such as numbers and space, and techniques such as
	estimation and approximation, for practical purposes
	Reading Skills
	The user/individual on the job needs to know and understand how to:
	SA5. Read and understand manuals, health and safety instructions, memos, reports,
A Coro Chille	job cards etc
A. Core Skills/	SA6. Read images, graphs, diagrams
Generic Skills	SA7. Understand the various coding systems as per company norms
	3A7. Onderstand the various coding systems as per company norms
	Oral Communication (Listening and Speaking skills)
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	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
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	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	
	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	
	Decision Making	
B. Professional Skills	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.	
	SB2. Handle internal mixer, accessories	
	SB3. Handle rubber compound	
	SB4. Handle chemicals	
	SB5. Handling of various types of material handling equipment like forklifts, trolleys	
	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.	
	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	
	<u> </u>	
	Analytical Thinking	









Prepare tyre building machine and collect all components required for Tyre Building

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

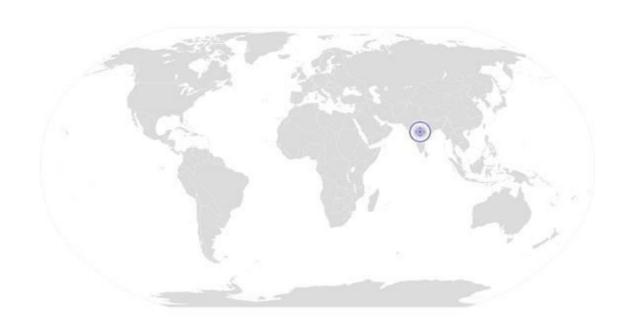
Critical Thinking

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





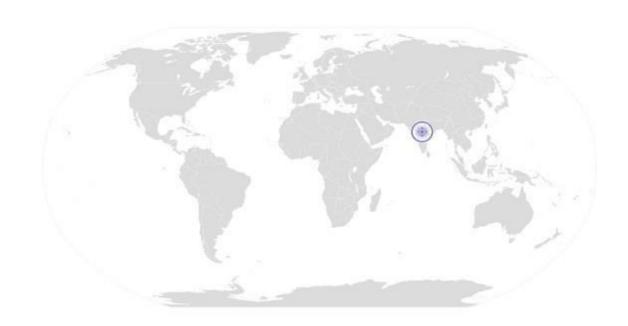






NOS Version Control

NOS Code	RSC / N 1901		
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













Overview

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







Unit Code	RSC / N 1902
Unit Title (Task)	Build 2/3/4 wheeler passenger vehicle tyre
Description	This unit is about building 2/3/4 wheeler passenger vehicle tyre
Scope	This unit/task covers the following: • Building 2/3/4 wheeler bias passenger vehicle tyre
Performance Criteria (PC) w.r.t. the Scope
Element	Criteria
	To be competent, the user/individual on the job must be able to :
Raw material appropriateness	PC1. Ensure, by visual inspection, that tyre building material is of desired quality (free of contamination etc.)
	PC2. Ensure that batch size of tyre building material is as per specified quantity
Operation	PC3. Plan batch sequence in shifts based on raw material availability/rejection to maximize output PC4. Ensure machine set up as per type of the equipment/machine as per SOP PC5. Ensure functioning of guide lights for breaker and chaffer centering PC6. Apply drum cement on building drum, if necessary PC7. Apply Plies, number as required as per tyre size and Ply Rating (PR) on the drum at opposite angle followed with consolidation with hand tool. PC8. Apply Breaker on the top of the band PC9. 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. PC10. Apply ply turn-up & turn-down stitchers are applied before & after applying bead PC11. Apply chafer on both ends / edges of the green tyre PC12. Apply Tread on the top PC13. Rotate drum at controlled speed, freshen surface and apply stitchers as per process requirement during the building process PC14. Apply centre line marking is on the top of tread PC15. Ensure that material wastage is within tolerance limits PC16. Ensure that no rework or rejection is generated. PC17. Match the quality of output to company's product requirements PC18. Meet production quantity targets set for the operation PC19. Follow work instructions as laid down by the company







Health & Safety	PC20. Ensure Housekeeping and Safety in Tyre Building area PC21. Do not wear loose and torn clothes during working hours PC22. Ensure no spillage of Naphtha or solvent PC23. Ensure of of personal protective equipment like wearing protective gloves, safety shoes, Safety Glasses, safety mask etc) PC24. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc. PC25. Adhere to all the other safety norms PC26. Comply with other health, safety, environment guidelines, regulations etc in accordance with company procedure PC27. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury. PC28. Ensure proper use of solvent
Knowledge and Under	standing (K)
A. Organizational Context (Knowledge of the company / organization and its processes)	 The user/individual on the job needs to know and understand: KA1. Proper tyre building process KA2. Implications of poorly prepared equipment, power failure etc KA3. Material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure KA4. Quality and damage checks to be done and importance of the same KA5. Importance of identifying non-conforming material and storage of the same KA6. Risk and impact of not following defined procedures/work instructions KA7. Escalation matrix for reporting identified problems KA8. Types of documentation in organization and importance of the same KA9. Records to be maintained and implications of non-maintenance of the same KA10. Importance of housekeeping KA11. Health, Safety and Environment guidelines, legislation and regulations as applicable KA12. Personal protection(Which protective equipment to be used and how) KA13. Impact of poor practices on health, safety and environment KA14. Potential hazards and actions to minimize the same
B. Technical Knowledge	 KA15. Escalation matrix and escalation procedure for reporting hazards The user/individual on the job needs to know and understand: KB1. Different types of Tyre Building Machine (TBM) & its operation KB2. Importance of process parameters (time, temperature, pressure, humidity etc) and impact KB3. Importance of various components (like bead, ply, tread, sidewall etc) on subsequent process and performance of the product KB4. Ability to take measurement using gauges and balance (for thickness, width and weight)







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	KB5. Troubleshooting- Knowledge of abnormalities and what response to make in case of abnormalities in equipment performance		
	KB6. Cleanliness and safety requirements for commencing a tyre building operation		
	1		
	KB7. The role of protective railing, light barriers, safety mats and scanners which are		
	present for the protection of operator and complete tyre building machinery.		
	KB8. Health hazard due to inhalation of solvent		
	KB9. Fire hazard due to flammable solvent		
	KB10. Sequence of laying the ply and building the tyre		
	KB11. Implications of not adhering to sequence of activities and operations		
	KB12. Implications of delays in production process KB13. The process and importance of quality check ,including visual inspection and		
	dimensional checks		
	KB14. Effect of improper tyre building on performance of tyre		
	KB15. Types of defects leading to rejections.		
	KB16. Potential problems in the tyre building operation		
	KB17. Indicators and reasons of potential problems		
	KB18. Appropriate solutions to the problems encountered		
	KB19. Units of measurement		
	KB20. Response to emergencies e.g. Power failures ,fire and system failures		
	KB21. The usage of different fire extinguishers		
Skills (S)			
	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		
A. Core Skills/	1		
Generic Skills	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)
	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
	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	Decision Making
Skills	The user/individual on the job needs to know and understand how to:
	SB7. Take appropriate decisions regarding processing steps in view of changing
	quality and availability of raw materials and finished goods.
	SB8. Handle internal mixer, accessories
	SB9. Handle rubber compound
	SB10. Handle chemicals
	SB11. Handling of various types of material handling equipment like forklifts, trolleys
	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. 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









National Occupational Standards Build 2/3/4 wheeler passenger vehicle tyre

Cu	ustomer Centricity
N.	A
Pı	roblem Solving
	he user/individual on the job needs to know and understand how to: B 10. Interpret quality for sheet
	B 11 . Suggest improvements(if any) in process/product/materials based on results and experience
A	nalytical Thinking
SE	he user/individual on the job needs to know and understand how to: B 12. Diagnose common problems in the machine based on visual inspection, sound, emperature etc
SE	B 13. Suggest improvements(if any) in process based on experience
Cı	ritical Thinking
SE SE	he user/individual on the job needs to know and understand how to: B14. Handle equipment/rubber sheet SB6. seek clarification on problems from others B15. apply problem-solving approaches in different situations
SE	B16. refer anomalies to the line manager



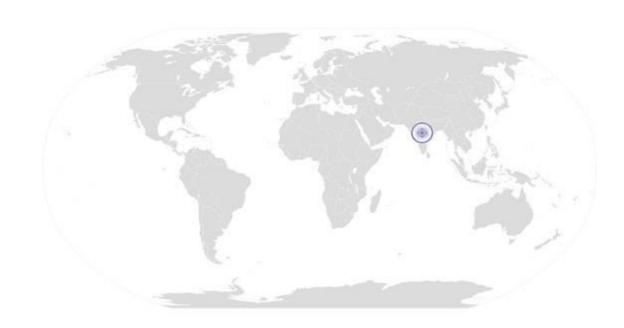
National Occupational Standards Build 2/3/4 wheeler passenger vehicle tyre





NOS Version Control

NOS Code	RSC / N 1902		
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













Overview

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



RSC / N 1903





National Occupational Standards Post tyre building activities for passenger vehicle tyres (N 1002

	N3C / N 1303	
Unit Title (Task)	Post tyre building activities for passenger vehicle tyres	
Description	This unit is about performing post tyre building activities for passenger vehicle tyres	
Scope	This unit/task covers the following: • Collecting green tyre/number marking	
	Preparing tyre for painting/curing	
	Transporting tyre to painting/curing department	
Performance Criteria		
Element	Criteria	
Operation	PC1. Follow work instructions as laid down by the company PC2. Remove green tyre from the TBM and put on a trolley PC3. Transport tyre to painting section	
Operation	 PC4. Spray paint tyre from inside and outside and dry in a hot chamber and allow to cool for definite time PC5. Remove tyre and transport to curing section for tyre curing PC6. Visually inspect tyre for defects PC7. Handover the equipment to the next operator in clean and good condition 	
Material disposal	PC8. Dispose off waste material as per waste disposal procedures laid down by the company PC9. Carry out disposal of waste material safely	
Batch Marking	PC10. Form batch size as per company specifications PC11. Carry out tyre marking for the right product PC12. Carry out tyre marking as per instructions laid down by the company (in terms of weight, colour etc).	
Sampling	PC13. Send sample of specified product/tyre no. to lab for testing, if warranted PC14. Send sample in specified quantity to lab for testing PC15. Send sample in the specified form to lab for testing PC16. Send the remaining material to the designated storage area	
Health & Safety	PC17. Ensure Housekeeping and Safety in Tyre Building area PC18. Do not wear loose and torn clothes during working hours PC19. Ensure no spillage of Naphtha or solvent PC20. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury. PC21. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc.	









National Occupational Standards Post tyre building activities for passenger vehicle tyres MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP

PC22. Ensure use of personal protective equipment like wearing protective gloves, safety

	shoes, Safety Glasses, safety mask etc.			
	PC23. Ensure that he wears proper protective equipment while handling the hot knife to			
	cut joints.			
	PC24. Ensure that he wears protective equipment like mask to avoid inhalation of solvent			
	vapor			
	PC25. Adhere to all the other safety norms			
	PC26. Comply with other health, safety, environment guidelines, regulations etc in			
	accordance with company procedure			
	PC27. Ensure proper use of solvent			
Knowledge and Unde	rstanding (K)			
A. Organizational	The user/individual on the job needs to know and understand:			
Context	KA1. Implications of poorly prepared equipment, power failure etc			
(Knowledge of	KA2. Material disposal procedure, importance of appropriate disposal of material and			
the company /	implications of not following the material disposal procedure			
organization and	KA3. Significance of batch marking			
its processes)	KA4. Importance of identifying non-conforming product and storage of the same			
	KA5. Risk and impact of not following defined procedures/work instructions			
	KA6. Escalation matrix and procedure for reporting identified problems			
	KA7. Types of documentation in organization and importance of the same			
	KA8. Records to be maintained and implications of non-maintenance of the same			
	KA9. Importance of housekeeping			
	KA10. Health, Safety and Environment guidelines, legislation and regulations as applicable			
	KA11. Personal protection(Which protective equipment to be used and how)			
	KA12. Potential hazards and actions to minimize the same			
	KA13. Impact of poor practices on health, safety and environment			
	KA14. Escalation matrix and procedure for reporting hazards			
B. Technical	The user/individual on the job needs to know and understand:			
Knowledge	KB1. Importance of various components (like bead, ply, tread, sidewall etc) on subsequent			
	process and performance of the product			
	KB2. Spray painting process for bias tyres.			
	KB3. Use of instruments to check dimensions etc			
	KB4. Implications of improper building/curing on bias tyres			
	KB5. Implications of inappropriate waste disposal			
	KB6. Batch marking techniques			
	KB7. Implications of incorrect batch marking			
	KB8. Type of defects/problems leading to rejections.			
	KB9. Indicators and reasons of problems encountered			
	KB10. Units of measurement			
	KB11. Colour and colour coding			
	KB12. Responding to emergencies e.g. Power failures ,fire and system failures			
	1			

KB13. The usage of different fire extinguishers







RSDC	National Occupational Standards National Occupational Standards		
C/N 1903	Post tyre building activities for passenger vehicle tyres A ENTREPRENEURSHIP Transforming the skill land		
Skills (S)			
	Writing Skills		
	The user/ individual on the job needs to know and understand how to:		
	SA1. Construct simple sentences and express ideas clearly through written		
	communication		
	SA2. Fill up appropriate technical forms, process charts, activity logs in required format		
	of the company		
	SA3. Write simple letters, mails, etc		
	SA4. Perform functional mathematical operations, including apply basic mathematical		
	principles, such as numbers and space, and techniques such as estimation and		
	approximation, for practical purposes		
	Reading Skills		
	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		
A. Core Skills/	and understand		
Generic Skills	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 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. SA21. Avoid absenteeism		
	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		
	·		









Post tyre building activities for passenger vehicle tyres

B. Professional Skills

Decision Making

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.
- SB14. Handle internal mixer, accessories
- SB15. Handle rubber compound
- SB16. Handle chemicals
- SB17. Handling of various types of material handling equipment like forklifts, trolleys
- SB18. 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.

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 1903		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Manufacturing	Drafted on	04/06/13
Industry Sub-sector	Tyre Manufacturing	Last reviewed on	29/12/15
Occupation	Tyre Building	Next review date	29/12/17

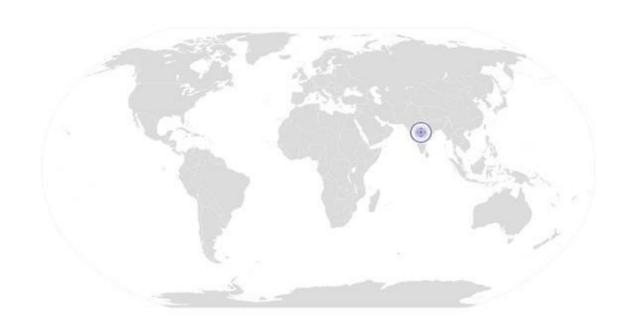












Overview

This unit is about carrying out housekeeping



Post housekeeping

activities





/ N 5001	To carry out housekeeping				
Unit Code	RSC / N 5001				
Unit Title (Task)	To carry out housekeeping				
Description	This unit is about carrying out housekeeping activities				
Scope	This unit/task covers the following: 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	To be competent, the user/individual on the job must be able to: PC1. Inspect the area while taking into account various surfaces PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain PC3. Ensure that the cleaning equipment is in proper working condition PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces PC6. Inform the affected people about the cleaning activity PC7. Display the appropriate signage for the work being conducted PC8. Ensure that there is adequate ventilation for the work being carried out PC9. Wear the personal protective equipment required for the cleaning method and materials being used				
Operations	PC10. Use the correct cleaning method for the work area, type of soiling and surface PC11. Carry out cleaning activity without disturbing others PC12. Deal with accidental damage, if any, caused while carrying out the work PC13. Report to the appropriate person any difficulties in carrying out your work PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill				
	PC15. Ensure that there is no oily substance on the floor to avoid slippage				

PC16. Ensure that no scrap material is lying around

during the cleaning process

PC17. Maintain and store housekeeping equipment and supplies

PC18. Follow workplace procedures to deal with any accidental damage caused

PC19. Ensure that, on completion of the work, the area is left clean and dry and







To carry out housekeeping

/ N 5001	To carry out housekeeping
	meets requirements PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored PC21. Dispose the waste garnered from the activity in an appropriate manner PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly
General	PC23. Maintain schedules and records for housekeeping duty PC24. Replenish any necessary supplies or consumables
Knowledge and Unders	tanding (K)
B. Technical Knowledge	 The user/individual on the job needs to know and understand: KB1. The levels of hygiene required by workplace and why it is important to maintain them during your work KB2. How to inspect a work area to decide what cleaning it needs KB3. Methods and materials that used for cleaning variety of surfaces KB4. The types of cleansing agents that are not to be mixed together KB5. The correct method for cleaning equipment and/or machinery used during your work KB6. The importance of personal protective equipment KB7. Appropriate personal protective equipment for the work area, cleaning equipment, tools, materials and chemicals used KB8. The correct sequence for cleaning the work area KB9. The time taken by the treatment to work KB10. The importance of following manufacturer's instructions on cleaning agents KB11. The most appropriate place to carry out test cleans and why this should be done before applying treatments KB12. The importance of applying treatments evenly and the effect of not doing this KB13. Process of cleaning the surfaces without causing injury or damage KB14. The method to check the treated surface and equipment on completion of cleaning KB15. Procedures for reporting any unidentified soiling KB16. Procedures for disposing off waste KB17. Procedures for disposing off or storing personal protective equipment KB18. Escalation procedures for soils or stains that could not be removed
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required







To carry out housekeeping

/ N 5001	To carry out nousekeeping	
	format of the company	
	SA3. Write simple letters, mails, etc	
	SA4. Perform functional mathematical operations, including apply basic	
	mathematical principles, such as numbers and space, and techniques such as	
	estimation and approximation, for practical purposes	
	Reading Skills	
	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)	
	The state of the s	
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 fron		
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	
	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	
	Decision Making	
B.Professional Skills	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 appropriate acciding regarding processing steps in view or changing quality	









To carry out housekeeping

and availability of raw materials and finished goods.

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



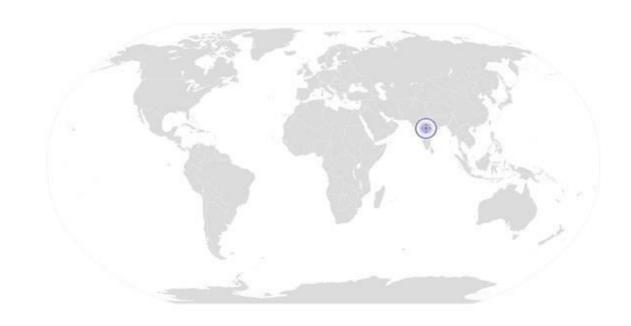






NOS Version Control

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

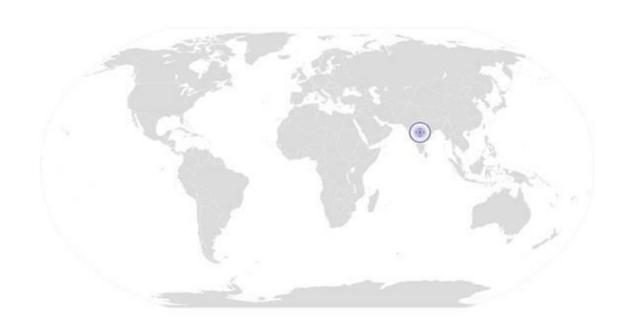












Overview

This unit is about reporting and documentation







To carry out reporting and documentation

Unit Code	RSC / N 5002		
Unit Title	To carry out reporting and documentation		
(Task)			
Description	This unit is about carrying out reporting and documentation		
Scope	This unit/task covers the following: Reporting of data/problem/incidents etc Documentation		
	Information Security		
Performance Criteria			
Element	Performance Criteria		
Reporting	To be competent, the user/individual on the job must be able to: PC1. Report data/problems/incidents as applicable in a timely manner PC2. Report to the appropriate authority as laid down by the company PC3. Follow reporting procedures as prescribed by the company		
Recording and Documentation	 PC4. Identify documentation to be completed relating to one's role PC5. Record details accurately an appropriate format PC6. Complete all documentation within stipulated time according to company procedure PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly PC8. Make sure documents are available to all appropriate authorities to inspect 		
Information Security	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures PC10. Inform the appropriate authority of requests for information received		
Knowledge and Unde	erstanding (K)		
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Different methods of recording information KB2. Various documents that need to be maintained KB3. Company procedure for filling/maintaining up the documents KB4. Procedures for reporting to the appropriate authority KB5. Procedures for recording damage, breakages etc KB6. Reporting incidents where standard operating procedures are not followed KB7. The importance of complete and accurate documentation KB8. How to maintain complete documentation accurately and within agreed		







To carry out reporting and documentation

and documentation aentrepresends with the contraction and the contraction are the cont
timescales KB9. The importance of ensuring that the documents are correct KB10. The actions to be taken if the documents are not correct KB11. The importance of maintaining the security and confidentiality of recorded information KB12. Procedures to maintain confidentiality of information KB13. The appropriate method for responding to requests for information KB14. The reporting procedures to followed before disclosing information to any outside party
Writing Skills The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes Reading Skills 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)







To carry out reporting and documentation

C / N 5002	I o carry out reporting and documentation A ENTREPRENEURSHIP			
	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 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.			
	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			
	Decision Making			
B.Professional Skills	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.			
	quant, and areas of a real material and an area go as			
	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			







To carry out reporting and documentation

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





National Occupational Standards To carry out reporting and documentation





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

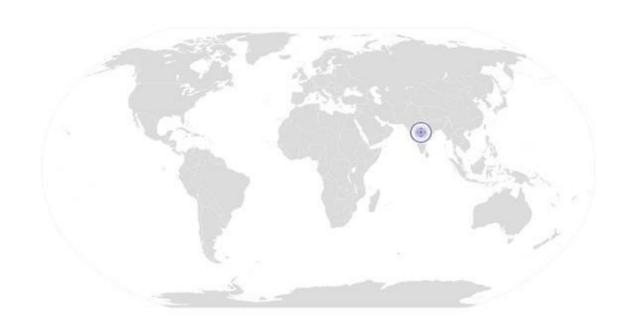












Overview

This unit is about carrying out quality checks



NOS National Occupational Standards To carry out quality checks





1130 / 14 3003	a entrepreneurship
Unit Code	RSC / N 5003
Unit Title (Task)	To carry out quality checks
Description	This unit is about carrying out quality control activities
Scope	 This unit/task covers the following: Carrying out quality checks to identify problems Take corrective actions Reporting the results

Performance Criteria (PC) w.r.t. the Scope			
Element	Performance Criteria		
Inspection	To be competent, the user/individual on the job must be able to: PC1. Ensure that total range of checks are regularly and consistently performed PC2. Use appropriate measuring instruments, equipment, tools, accessories etc "as required		
Analysis	 PC3. Identify non-conformities to quality assurance standards PC4. Identify potential causes of non-conformities to quality assurance standards PC5. Identify impact on final product due to non-conformance to company standards PC6. Evaluating the need for action to ensure that problems do not recur PC7. Suggest corrective action to address problem PC8. Review effectiveness of corrective action 		
Reporting	PC9. Interpret the results of the quality check correctly PC10. Take up results of the findings with QC in charge/appropriate authority. PC11. Take up the results of the findings within stipulated time PC12. Record of results of action taken PC13. Record adjustments not covered by established procedures for future reference PC14. Review effectiveness of action taken PC15. Follow reporting procedures where the cause of defect cannot be identified		
Knowledge and Understa	anding (K)		
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. The importance of quality control procedures		

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To carry out quality checks

1130 / 11 3003	a entrepreneurship		
	KB2. Relevance and importance of activities and how they contribute to the		
	achievement of the quality objectives,		
	KB3. Proper procedure for selecting the material/product and performing		
	quality checks without affecting the material		
	KB4. Availability of work instructions, as necessary,		
	KB5. Characteristics of the product/material		
	KB6. Use of suitable equipment		
	KB7. Availability and use of monitoring and measuring devices,		
	KB8. Requirements of records		
	KB9. Importance of maintaining accurate up-to-date records		
	KB10. The need to report within the stipulated time		
	KB11. Implications of inaccurate measuring and testing instruments and		
	equipment		
	KB12. The cost of non-conformance to quality standards		
	KB13. Implications (impact on internal/external customers) of defective		
	products, materials or components		
Skills (S)			
	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		
A Como Chille / Comonic	SA4. Perform functional mathematical operations, including apply basic		
A. Core Skills/ Generic	mathematical principles, such as numbers and space, and techniques such		
Skills	as estimation and approximation, for practical purposes		
	Reading Skills		
	The user/individual on the job needs to know and understand how to:		
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos,		
	SA5. Read and understand manuals, health and safety instructions, memos,		
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc		
	SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams		









To carry out quality checks

RSC / N 5003	To carry out quality cnecks	
	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 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.	
	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	
	Decision Making	
3.Professional Skills	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.	
	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	









To carry out quality checks

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



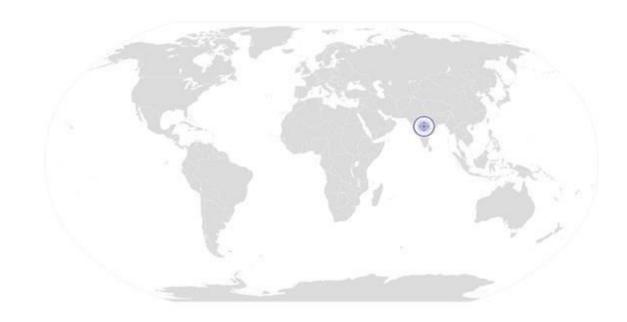






NOS Version Control

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



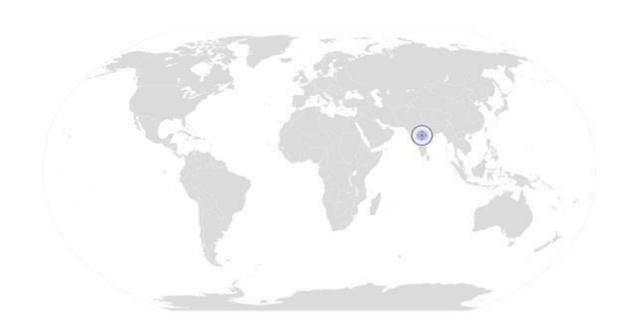








National Occupational Standard



Overview

This unit is about problem identification and escalation



NOS National Occupational Standards





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

Performance Criteria (PC) w.r.t. the Scope

Element	Performance Criteria
Problem Identification	To be competent, the user/individual on the job must be able to: PC1. Identify defects/indicators of problems PC2. Identify any wrong practices that may lead to problems PC3. Identify practices that may impact the final product quality PC4. Identify if the problem has occurred before PC5. Identify other operations that might be impacted by the problem PC6. Ensure that no delays are caused as a result of failure to escalate problems
Necessary Action	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required) PC8. Consider possible reasons for identification of problems PC9. Consider applicable corrections and formulate corrective action PC10. Formulate action in a timely manner PC11. Communicate problem/remedial action to appropriate parties PC12. Take corrective action in a timely manner PC13. Take corrective action for problems identified according to the company procedures PC14. Report/document problem and corrective action in an appropriate manner PC15. Monitor corrective action



NOS National Occupational Standards





To carry out problem identification and escalation

SC / N 3004	To carry out problem identification and escalation
	PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved PC17. Ensure that corrective action selected is viable and practical PC18. Ensure that correct solution is identified to an identified problem PC19. Take corrective action for problems identified according to the company procedures PC20. Ensure that no delays are caused as a result of failure to take necessary action
Problem Escalation Knowledge and Un	PC21. Escalate problem as per laid down escalation matrix PC22. Escalate the problem within stipulated time PC23. Escalate the problem in an appropriate manner PC24. Ensure that no delays are caused as a result of failure to escalate problems Iderstanding (K)
B. Technical Knowledge	KB1. Indicators of problems KB2. The working of the equipment and accessories(if applicable) KB3. The impact of operations on the user and equipment(if applicable) KB4. The impact of operations on the final product (if applicable) KB5. The effect of not rectifying the problems identified KB6. The reason for the occurrence of previous problems KB7. Measures and steps that have been taken to address the previous problems KB8. Possible solutions for various problems KB9. The correct method for carrying out corrective actions outlined for each problem KB10. The impact of not carrying out the corrective actions KB11. The documentation procedure for recording such problems, as per company norms KB12. The escalation matrix for reporting problems KB13. Escalation matrix for reporting unresolved problem needs to be escalated KB15. Manner in which each problem needs to be escalated
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc









To carry out problem identification and escalation

C / N 5004	To carry out problem identification and escalation A ENTREPRENEURSHIP			
	SA4. Perform functional mathematical operations, including apply basic			
	mathematical principles, such as numbers and space, and techniques such as			
	estimation and approximation, for practical purposes			
	Reading Skills			
	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 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.			
	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			
	Decision Making			
B.Professional				
Skills	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.			









To carry out problem identification and escalation

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









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



CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role: Tyre Building Operator-Passenger Vehicles

Qualification Pack Code: RSC/ Q 0519

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		ation	
NOS	Elements	Performance Criteria	Total	Theory	Practical
	PC1. Ensure that tyre building	5	2	3	
		PC2. Ensure that building drum is clean	5	2	3
		PC3. Ensure that building drum of the correct size is in place	5	2	3
1 DCC / N		PC4. Follow equipment preparation process as per company requirements	5	2	3
1. RSC / N 1901 Prepare tyre building machine and collect all components	PC5. Ensure that no delays are caused as a result of improper preparation and failure to identify problems.	5	2	3	
	PC6. Keep other building tools such as drum cement, hand stitcher, knife ready	5	2	3	
Tyre Building	required for Tyre Building	PC7. Ensure that all safety devices on the machine are properly functioning before start of the work.	5	2	3
	PC8. Ensure electrical panel door is in closed condition during working hours.	5	2	3	
	PC9. Check guide lights for breaker and chaffer centering	5	2	3	
		PC10. Ensure the stitching pressure (tread/ply) as per specification.	5	2	3

	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	4	2	2
	PC13. Ensure that components such as bead, tread, plies, freshening solvent, swab and hand stitcher etc. are ready	4	2	2
Raw material	PC14. Ensure that other materials are in the correct quantity	4	2	2
appropriateness	PC15. Ensure, by visual inspection, that raw material is of desired quality (free of contamination etc.)	4	2	2
	PC16. Ensure that material to be fed is approved by laboratory	2	2	0
	PC17. Ensure that no delays are caused as a result of improper preparation and failure to identify problems	2	2	0
	PC18. Ensure that only identified and approved materials are used	2	2	0
	PC19. Ensure following FIFO	5	2	3
	PC20. Ensure Housekeeping and Safety in Tyre Building area	3	2	1
	PC21. Do not wear loose and torn clothes during working hours	3	2	1
	PC22. Ensure no spillage of Naphtha or solvent	3	2	1
	PC23. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc.	2	1	1
Health & Safety	PC24. Ensure of of personal protective equipment like wearing protective gloves, safety shoes, Safety Glasses, safety mask etc)	2	1	1
	PC25. Adhere to all the other safety norms	2	1	1
	PC26. Comply with other health, safety, environment guidelines, regulations etc in accordance with company procedure	2	1	1
	PC27. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury.	2	1	1

		PC28. Ensure proper use of solvent	2	1	1
			100	50	50
	Raw material	PC1. Ensure, by visual inspection, that tyre building material is of desired quality (free of contamination etc.)	3	3	0
	appropriateness	PC2. Ensure that batch size of tyre building material is as per specified quantity	3	3	0
		PC3. Plan batch sequence in shifts based on raw material availability/rejection to maximize output	3	3	0
		PC4. Ensure machine set up as per type of the equipment/machine as per SOP	3	3	0
		PC5. Ensure functioning of guide lights for breaker and chaffer centering	3	3	0
		PC6. Apply drum cement on building drum, if necessary	7	3	4
2. RSC / N 1902 Build		PC7. Apply Plies, number as required as per tyre size and Ply Rating (PR) on the drum at opposite angle followed with consolidation with hand tool.	7	3	4
2/3/4 wheeler		PC8. Apply Breaker on the top of the band	7	3	4
passenger vehicle tyre	Operation	PC9. 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	3	4
		PC10. Apply ply turn-up & turn-down stitchers are applied before & after applying bead	7	3	4
		PC11. Apply chafer on both ends / edges of the green tyre	7	3	4
		PC12. Apply Tread on the top	7	3	4
		PC13. Rotate drum at controlled speed, freshen surface and apply stitchers as per process requirement during the building process	7	3	4
		PC14. Apply centre line marking is on the top of tread	6	2	4
		PC15. Ensure that material wastage is within tolerance limits	2	2	0
		PC16. Ensure that no rework or rejection is generated.	2	2	0

		PC17. Match the quality of output to company's product requirements	4	2	2
		PC18. Meet production quantity targets set for the operation	4	2	2
		PC19. Follow work instructions as laid down by the company	2	2	0
		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. Ensure of of personal protective equipment like wearing protective gloves, safety shoes, Safety Glasses, safety mask etc)	1	1	0
	Health & Safety	PC24. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc.	1	1	0
		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	60	40
		PC1. Follow work instructions as laid down by the company	7	2	5
		PC2. Remove green tyre from the TBM and put on a trolley	7	2	5
3. RSC / N		PC3. Transport tyre to painting section	7	2	5
building activities for	- I Operation	PC4. Spray paint tyre from inside and outside and dry in a hot chamber and allow to cool for definite time	7	2	5
		PC5. Remove tyre and transport to curing section for tyre curing	7	2	5
		PC6. Visually inspect tyre for defects	7	2	5
		PC7. Handover the equipment to the next operator in clean and good condition	2	2	0

Material	PC8. Dispose off waste material as per waste disposal procedures laid down by the company	2	2	0
disposal	PC9. Carry out disposal of waste material safely	2	2	0
	PC10. Form batch size as per company specifications	2	2	0
Batch Marking	PC11. Carry out tyre marking for the right product	2	2	0
Daten Warking	PC12. Carry out tyre marking as per instructions laid down by the company (in terms of weight, colour etc).	2	2	0
	PC13. Send sample of specified product/tyre no. to lab for testing, if warranted	2	2	0
Sampling	PC14. Send sample in specified quantity to lab for testing	2	2	0
	PC15. Send sample in the specified form to lab for testing	2	2	0
	PC16. Send the remaining material to the designated storage area	2	2	0
	PC17. Ensure Housekeeping and Safety in Tyre Building area	4	2	2
	PC18. Do not wear loose and torn clothes during working hours	4	2	2
	PC19. Ensure no spillage of Naphtha or solvent	4	2	2
	PC20. Use Forklift / Trolleys etc. while lifting heavy materials such as heavy finished tyres to avoid physical injury.	4	2	2
Health & Safety	PC21. Handle tyres safely by using Gloves, Caps (suitable type) etc to avoid continued contact with harmful materials like carbon black etc.	4	2	2
	PC22. Ensure use of personal protective equipment like wearing protective gloves, safety shoes, Safety Glasses, safety mask etc.	4	2	2
	PC23. Ensure that he wears proper protective equipment while handling the hot knife to cut joints.	4	2	2
	PC24. Ensure that he wears protective equipment like mask to avoid inhalation of solvent vapor	3	1	2
	PC25. Adhere to all the other safety norms	3	1	2

		PC26. Comply with other health,			
		safety, environment guidelines,			
		regulations etc in accordance with	2	1	1
		company procedure			
		PC27. Ensure proper use of solvent	2	1	1
		1 627. Elisare proper ase of solvene	100	50	50
		DC1 Inspect the area while taking	100	30	30
		PC1. Inspect the area while taking	3	2	
		into account various surfaces		3	0
		PC2. Identify the material			
		requirements for cleaning the areas	3		
		inspected, by considering risk, time,		2	
		efficiency and type of stain		3	0
		PC3. Ensure that the cleaning	_		
		equipment is in proper working	3		
		condition		3	0
		PC4. Select the suitable alternatives			
		for cleaning the areas in case the			
		appropriate equipment and materials	3		
	Pre	are not available and inform the			
	housekeeping	appropriate person		3	0
	activities	PC5. Plan the sequence for cleaning			
		the area to avoid re-soiling clean	3		
		areas and surfaces		3	0
		PC6. Inform the affected people	2		
4 000 / 11		about the cleaning activity	2	2	0
4. RSC / N		PC7. Display the appropriate signage	2		
5001 To Carry		for the work being conducted	3	3	0
Out		PC8. Ensure that there is adequate			
Housekeeping		ventilation for the work being carried	3		
		out		3	0
		PC9. Wear the personal protective			
		equipment required for the cleaning	3		
		method and materials being used		3	0
		PC10. Use the correct cleaning			
		method for the work area, type of	3		
		soiling and surface		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	3		
	Operations	work	ا	3	0
		PC13. Report to the appropriate		<u> </u>	U
			3		
		person any difficulties in carrying out	3	2	0
		your work		3	0
		PC14. Identify and report to the			
		appropriate person any additional	3	2	
		cleaning required that is outside one's		3	0

		responsibility or skill			
		PC15. Ensure that there is no oily			
		substance on the floor to avoid	9		
		slippage		3	6
		PC16. Ensure that no scrap material is			
		lying around	9	3	6
		PC17. Maintain and store			
		housekeeping equipment and	3		
		supplies		3	0
		PC18. Follow workplace procedures		_	
		to deal with any accidental damage	3		
		caused during the cleaning process		3	0
		PC19. Ensure that, on completion of			
	Post	the work, the area is left clean and	8		
	housekeeping	dry and meets requirements		2	6
	activities	PC20. Return the equipment,			
		materials and personal protective			
		equipment that were used to the	3		
		right places making sure they are			
		clean, safe and securely stored		3	0
		PC21. Dispose the waste garnered		_	
		from the activity in an appropriate	9		
		manner		3	6
		PC22. Dispose of used and un-used			
		solutions according to manufacturer's			
		instructions, and clean the equipment	9		
		thoroughly		3	6
		PC23. Maintain schedules and records	_		
		for housekeeping duty	3	3	0
	General	PC24. Replenish any necessary	_		
		supplies or consumables	3	3	0
			100	70	30
		PC1. Report data/problems/incidents		. 0	
		as applicable in a timely manner	12	8	4
		PC2. Report to the appropriate			<u> </u>
	Reporting	authority as laid down by the	12		
		company		8	4
5. RSC / N		PC3. Follow reporting procedures as			<u> </u>
5002 To Carry		prescribed by the company	12	8	4
Out Reporting		PC4. Identify documentation to be			<u> </u>
And		completed relating to one's role	10	6	4
Documentation	PC5. Record details accurately an			<u> </u>	
	Recording and	appropriate format	16	6	10
	Documentation	PC6. Complete all documentation			
		within stipulated time according to	14		
		company procedure	- '	4	10
		PC7. Ensure that the final document	6	4	2
		1 67. Ensure that the illiar document	J	7	

I		meets with the requirements of the			
		persons who requested it or make			
		any amendments accordingly			
		PC8. Make sure documents are			
		available to all appropriate	6		
		authorities to inspect		4	2
		PC9. Respond to requests for			
		information in an appropriate manner	6		
	Information	whilst following organizational	o l		
	Security	procedures		6	0
	,	PC10. Inform the appropriate	6		
		authority of requests for information	6	C	0
		received	100	6	0
		200 5 11 11 11 11 11 11	100	60	40
		PC1. Ensure that total range of checks	24		
		are regularly and consistently performed	24	10	14
	Inspection	PC2. Use appropriate measuring		10	14
		instruments, equipment, tools,	24		
		accessories etc ,as required	'	10	14
		PC3. Identify non-conformities to			
		quality assurance standards	6	4	2
		PC4. Identify potential causes of non-			
		conformities to quality assurance	5		
		standards		3	2
		PC5. Identify impact on final product			
	Analysis	due to non-conformance to company	5		
	7 11 10 1 7 515	standards		3	2
6. RSC/N		PC6. Evaluating the need for action to	6	_	
5003 To Carry		ensure that problems do not recur		4	2
Out Quality		PC7. Suggest corrective action to	5	2	2
Checks		address problem PC8. Review effectiveness of		3	2
		corrective action	5	3	2
		PC9. Interpret the results of the			
		quality check correctly	4	4	0
		PC10. Take up results of the findings			-
		with QC in charge/appropriate	3		
		authority.		3	0
		PC11. Take up the results of the	3		
	Reporting	findings within stipulated time	3	3	0
		PC12. Record of results of action	3		
		taken		3	0
		PC13. Record adjustments not			
		covered by established procedures	3	2	_
		for future reference		3	0
		PC14. Review effectiveness of action	2	2	0

		taken			
		PC15. Follow reporting procedures			
		where the cause of defect cannot be	2		
		identified		2	0
			100	60	40
		PC1. Identify defects/indicators of	7		
		problems	7	4	3
		PC2. Identify any wrong practices that	6		
		may lead to problems	0	3	3
		PC3. Identify practices that may	6		
	Problem	impact the final product quality	U	3	3
	Identification	PC4. Identify if the problem has	5		
	lacitification	occurred before	3	3	2
		PC5. Identify other operations that	6		
		might be impacted by the problem	ŭ	4	2
ı		PC6. Ensure that no delays are caused			
		as a result of failure to escalate	5		
		problems		3	2
		PC7. Take appropriate materials and			
		sample, conduct tests and evaluate			
		results to establish reasons to confirm	8		
		suspected reasons for non-		_	_
		conformance (where required)		5	3
7. RSC / N		PC8. Consider possible reasons for	8	_	_
5004 To Carry		identification of problems		5	3
Out Problem		PC9. Consider applicable corrections	3	2	
Identification		and formulate corrective action		3	0
And Escalation		PC10. Formulate action in a timely	3	2	
		manner		3	0
		PC11. Communicate	_		
		problem/remedial action to	7	_	2
	Necessary	appropriate parties		5	2
	Action	PC12. Take corrective action in a timely manner	2	2	0
		PC13. Take corrective action for			U
		problems identified according to the	2		
		company procedures	2	2	0
		PC14. Report/document problem and			0
		corrective action in an appropriate	8		
		manner	G	5	3
		PC15. Monitor corrective action	2	2	0
		PC15. Monitor corrective action PC16. Evaluate implementation of			U
		corrective action taken to determine	2		
		if the problem has been resolved		2	0
		PC17. Ensure that corrective action			U
		selected is viable and practical	2	2	0
		PC18. Ensure that correct solution is	2	2	0
		rcto. Elisure that correct solution is			U

	identified to an identified problem			
	PC19. Take corrective action for			
	problems identified according to the	1		
	company procedures		1	0
	PC20. Ensure that no delays are			
	caused as a result of failure to take	1		
	necessary action		1	0
	PC21. Escalate problem as per laid	4		
	down escalation matrix	4	3	1
	PC22. Escalate the problem within	4		
Problem	stipulated time	4	3	1
Escalation	PC23. Escalate the problem in an	3		
Lscalation	appropriate manner	3	2	1
	PC24. Ensure that no delays are			
	caused as a result of failure to	3		
	escalate problems		2	1
		100	70	30