

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- Laboratory Assistant/Chemist

SECTOR: RUBBER INDUSTRY

SUB-SECTOR: Natural Rubber (NR) Plantation

OCCUPATION: Lab Chemist

REFERENCE ID: RSC/ Q 0303

ALIGNED TO: NCO- 2004/Nil

Brief Job Description: He is responsible for drawing and analyzing the samples of raw materials, finished products, by products, chemicals, effluents etc in the laboratory.

Personal Attributes: This job requires the individual to work independently and with integrity. He must be able to interpret findings in a cohesive manner. He should be proficient in the methods of analysis, preparation of documents, able to suggest corrective /preventive measures with regard to maintenance of quality standards.

Qualification Pack for Laboratory Assistant/Chemist

Job Details

Qualifications Pack Code	RSC/ Q 0303		
Job Role	Laboratory Assistant/Chemist		
Credits(NSQF)	TBD	Version number	1.0
Sector	Rubber Industry	Drafted on	22/06/15
Sub-sector	Natural Rubber (NR) Plantation	Last reviewed on	22/06/15
Occupation	Lab Chemist	Next review date	22/06/17
NSQC Clearance on	20/07/2015		

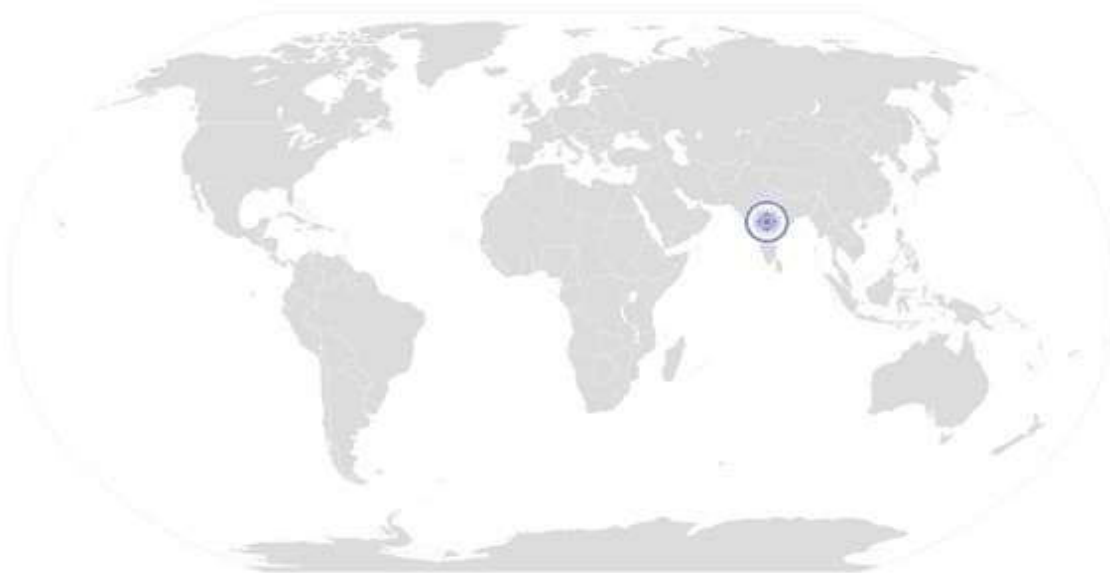
Job Role	Chemist / Lab Assistant
Role Description	He is responsible for drawing and analyzing the samples of raw materials, finished products, by products, chemicals, effluents etc in the laboratory.
NSQF level	4
Minimum Educational Qualifications*	Diploma in Chemistry – desirable
Maximum Educational Qualifications*	NA
Training (Suggested but not mandatory)	Training in various analytical methods and quality standards of rubber.
Minimum Job Entry Age	18 years
Experience	1 year experience in chemical analysis of rubber/rubber products
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> RSC/ N 0309 To draw the samples and carry out lab analysis RSC/ N 5001 To carry out housekeeping) RSC/ N 5002 (To carry out reporting and documentation) RSC/ N 5003 (To carry out quality checks) Optional: NA
Performance Criteria	As described in the relevant OS units

Qualification Pack for Laboratory Assistant/Chemist

Definitions

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
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

Sample for testing and analysis of raw material, finished products, by products, chemicals and effluents for ascertaining the contents, comparing the results with the accepted parameters and preparation of draft certificate of analysis.

To draw the samples and carry out lab analysis

National Occupational Standard

Unit Code	RSC/ N 0309
Unit Title (Task)	To draw the samples and carry out analysis
Description	Samples for testing and analysis of raw material, finished products, by products, chemicals and effluents for ascertaining the contents, comparing the results with the accepted parameters and preparation of draft certificate of analysis.
Scope	<p>This unit covers the following:</p> <ul style="list-style-type: none"> • Sample Collection • Sample Integrity • Equipment readiness • Sample Testing • Analysis • Recording and Reporting • Health & Safety • Material Disposal
Performance Criteria(PC)	
Element	Performance Criteria
Sample Collection	<p>To be competent, the user/individual on the job must be able to :</p> <p>PC1. Scientifically draw sample of the materials from the lot to be tested as per standard procedures (SOP)</p> <p>PC2. Sampling should be as per process flow sheet with control points</p> <p>PC3. Identify the sample by labeling/numbering as per SOP</p> <p>PC4. Check shelf life of reagents</p>
Sample Integrity	<p>PC5. Identify the defect/problem in inappropriate sample</p> <p>PC6. Identify factors that affect the integrity of sample (eg. temperature, moisture, contamination, contact with liquids)</p> <p>PC7. Maintain integrity of the sample as per SOP.</p> <p>PC8. Store sample for future/further testing as per SOP.</p>

To draw the samples and carry out lab analysis

<p>Equipment readiness</p>	<p>PC9. Identify the most appropriate equipment for testing as per the SOP</p> <p>PC10. Set up appropriate equipment/apparatus to be used for testing correctly as per IS / ISO / International Standard and SOP</p> <p>PC11. Calibrate /verify/validate the testing equipment periodically as per SOP</p> <p>PC12. Identify defective equipment/apparatus and take steps as per SOP</p>
<p>Sample Testing</p>	<p>PC13. Ensure that the reagents and materials used for testing are of standard quality and procured from approved sources.</p> <p>PC14. Carry out tests as per SOP:</p> <p>PC15. Ensure that test methods conform to the required quality and accuracy of testing.</p> <p>PC16. Ensure that the approved raw materials conform to the specifications</p>
<p>Analysis</p>	<p>PC17. Keep tools and accessories ready before starting the analysis</p> <p>PC18. Ensure that the accuracy of the information captured in records is as per SOP</p> <p>PC19. Identify appropriate technique in evaluating result</p> <p>PC20. Interpret the results correctly using the identified technique(s)</p> <p>PC21. Based on test results, suggest steps to be taken to improve the quality of the end product</p> <p>PC22. Assist the management in organizing quality control systems</p>
<p>Recording and Reporting</p>	<p>PC23. Record and maintain data as per company standards (SOP)</p> <p>PC24. Ensure that reports/records are accurate and clear</p> <p>PC25. Release or Hold the material as per finding for further processing.</p> <p>PC26. Take up the results of the findings with supplier/QC in-charge/appropriate authority.</p> <p>PC 27. Inform concerned persons for rectifications, if needed in specified time limit</p> <p>PC28. Correspondence with management, staff, workers, and clients.</p> <p>PC29. Draft the certificate of analysis relating to raw materials, finished products, by products, effluents etc</p>
<p>Health & Safety</p>	<p>PC29. Ensure availability of safety accessories including eye wash lotion</p>

To draw the samples and carry out lab analysis

	<p>PC30. Ensure availability of raw materials/laboratory reagents Material Safety Data Sheet (MSDS) in the laboratory</p> <p>PC31. Handle the equipments properly</p> <p>PC32. Ensure samples and chemicals are carefully handled to avoid accidental spillage of chemicals.</p> <p>PC33. Escalate matters in case of any accidents, spills etc.</p> <p>PC34. Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational standards (SOP)</p> <p>PC 35.Precaution for dust / chemical inhaling and handling</p>
<p>Material Disposal</p>	<p>PC36. Carry out disposal of waste and left over tested material safely as per SOP</p> <p>PC37. Dispose all materials used in the experiment safely as per Health and Safety management system of the company</p>
<p>Knowledge and Understanding</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. The work culture of organization, its motto, and level of quality standards adopted.</p> <p>KA2. The objectives and functioning of the factory.</p> <p>KA3.The functioning of the factory and the organizational structure and span of control</p> <p>KA4. The quality policies of the management</p> <p>KA5.The production targets and schedule</p> <p>KA6. The different grades of raw material</p> <p>KA7.The quality standards of the product (cenex)</p> <p>KA8.The quality of the raw material, parameters of product, basic knowledge of BIS / ISI rules, specification of Rubber Board</p> <p>KA9.How to control the laboratory functions including testing of raw material to final product as per customer specifications</p> <p>KA10.The rules and regulations related to quality regime</p>

To draw the samples and carry out lab analysis

	<p>KA11.Importance of maintaining good rapport with quality department staffs</p> <p>KA12.Environmental regulations and Quality management systems</p>
B. Technical Knowledge	<p>KB1. Basic knowledge in the processing methods for latex / cenex</p> <p>KB2. Basic knowledge of different qualities of raw material</p> <p>KB3. Knowledge of different quality standards specified for cenex</p> <p>KB4. Unit operations in the factory and its effect on quality and output of the product</p> <p>KB5. Annual/monthly/daily/shift production targets and raw material and utility requirements</p> <p>KB6. Customer requirement on the quality and packing of the product</p> <p>KB7. Quality of the raw materials and the processing methods to handle each type of raw material</p> <p>KB8. Various process control measures available</p> <p>KB9. Quality management and control systems</p> <p>KB10. Organization of quality control laboratory and testing programme for supporting production programmes and timely shipment of product</p> <p>KB11. Basic knowledge in computing.</p> <p>KB12. Sufficient experience in latex centrifuging and laboratory experience.</p>
Skills (S)	
A. Core Skills/ Generic Skills	<p>Writing Skill</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Note down all the details regarding different requirements, details of quality of raw material and product, details of production etc.</p> <p>SA2. Write in English and local language.</p> <p>SA3. Write notices and other letters to various officers</p> <p>SA4. Preparation of reports/charts etc</p>
	<p>Reading Skills</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read informative periodicals and articles pertaining to specifications of raw materials and products, market reports, etc in English and local language</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>SA6. Communicate with upstream and downstream teams</p> <p>SA7. Communicate with sample originating section, supplier etc.</p> <p>SA8. Work in a team and other behavioral skills required to support the small group</p>

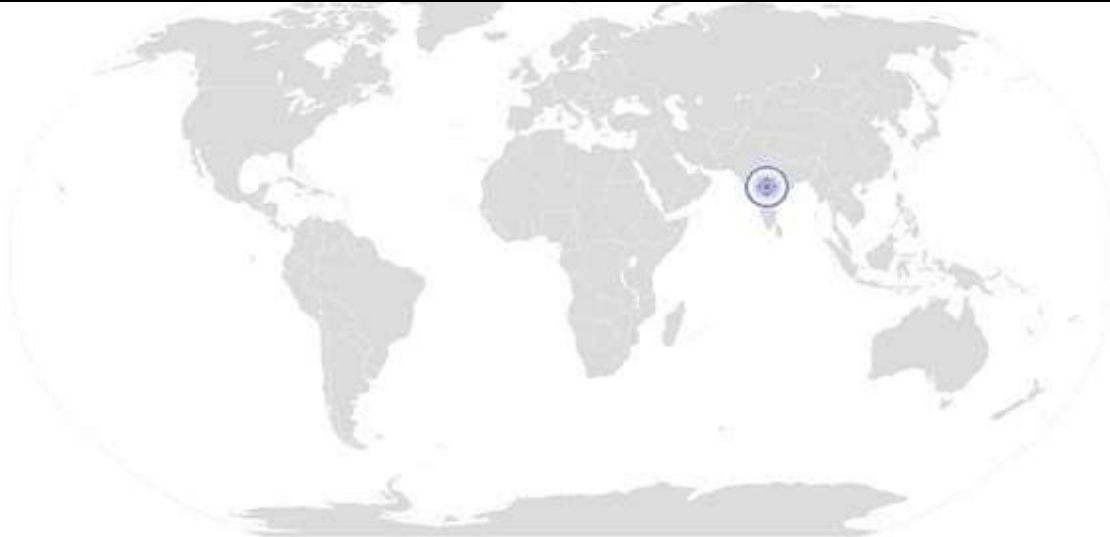
To draw the samples and carry out lab analysis

	<p>activities (Eg. Quality Circle, Cross Functional Team, Suggestion Scheme)</p> <p>SA9. Disclose information only to those who have the right and need to know it.</p> <p>SA10. Communicate confidential and sensitive information discretely to authorized persons only as per SOP</p>
B. Professional Skills	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Take decisions especially in case of sudden change in quality of the materials, problems arising out of bad quality materials etc.</p> <p>SB2. Take appropriate decisions regarding processing steps in view of changing quality and availability of raw materials</p> <p>SB3. Take diplomatic decisions while handling public grievances.</p>
	Plan and Organize
	SB4. Plan procurement of chemicals and other materials required for analysis of different samples.
	Customer Centricity
	SB5. Confirm customer requirements with specific thrust on quality.
	Problem Solving
	<p>SB6. Take corrective measures in maintaining quality standards wherever necessary.</p> <p>SB7. Solve any sudden and unexpected problem w.r.t quality standards of raw materials and products.</p>
	Analytical Thinking
SB7. Solve problems arising out of different operations of the company with respect to quality standard.	
Critical Thinking	
SB8. Identify the issues affecting the quality of the raw material and the end product and report to the appropriate authorities.	

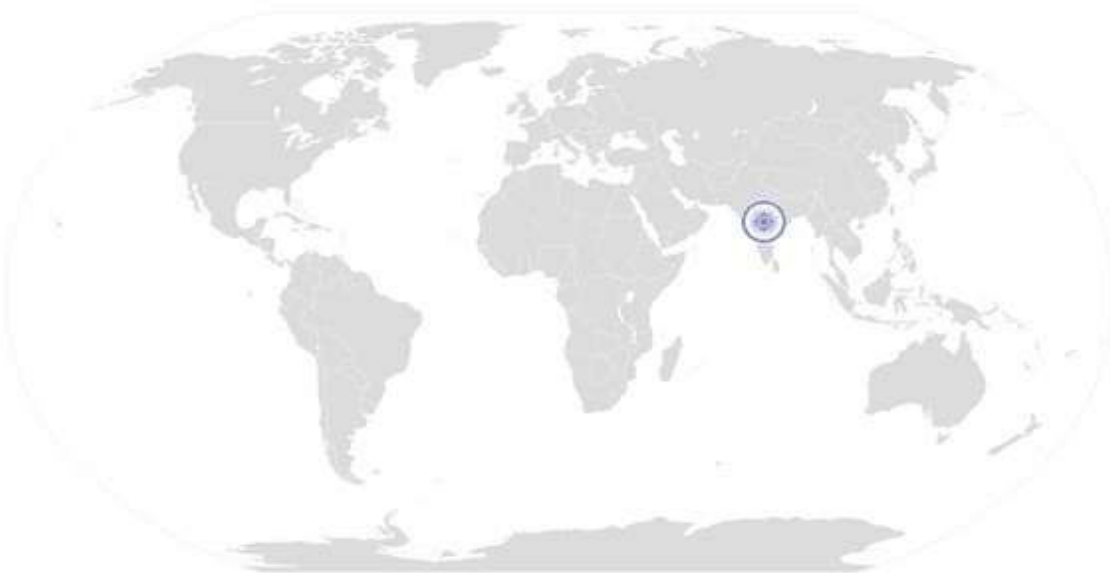
To draw the samples and carry out lab analysis

NOS Version Control

NOS Code	RSC / N 0309		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Industry	Drafted on	22/06/2015
Industry Sub-sector	Natural Rubber (NR) Plantation	Last reviewed on	22/06/2015
Occupation	Lab Chemist	Next review date	22/06/2017



National Occupational Standard



Overview

This unit is about carrying out housekeeping

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	<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>

RSC / N 5001
To carry out housekeeping

	<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>
General	<p>PC23. Maintain schedules and records for housekeeping duty</p> <p>PC24. Replenish any necessary supplies or consumables</p>

Knowledge and Understanding (K)

A. Technical Knowledge	<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>
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To carry out housekeeping

	<p>KB6. The importance of personal protective equipment</p> <p>KB7. Appropriate personal protective equipment for the work area, cleaning equipment, tools, materials and chemicals used</p> <p>KB8. The correct sequence for cleaning the work area</p> <p>KB9. The time taken by the treatment to work</p> <p>KB10. The importance of following manufacturer's instructions on cleaning agents</p> <p>KB11. The most appropriate place to carry out test cleans and why this should be done before applying treatments</p> <p>KB12. The importance of applying treatments evenly and the effect of not doing this</p> <p>KB13. Process of cleaning the surfaces without causing injury or damage</p> <p>KB14. The method to check the treated surface and equipment on completion of cleaning</p> <p>KB15. Procedures for reporting any unidentified soiling</p> <p>KB16. Procedures for disposing off waste</p> <p>KB17. Procedures for disposing off or storing personal protective equipment</p> <p>KB18. Escalation procedures for soils or stains that could not be removed</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<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>	

To carry out housekeeping

	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)
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.
	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

To carry out housekeeping

	<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>

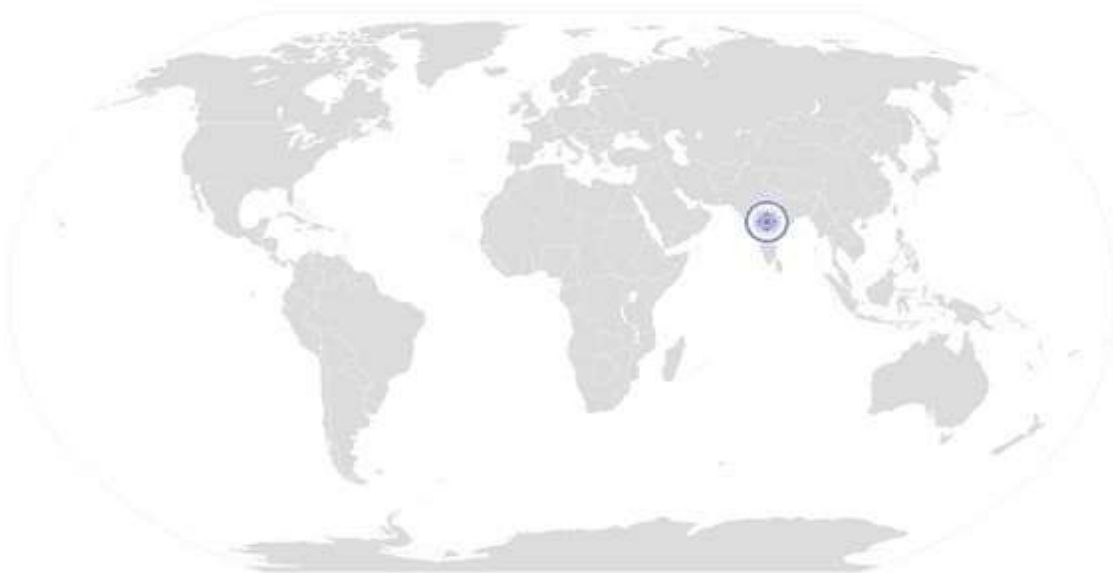


NOS Version Control

NOS Code	RSC / N 5001		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Industry	Drafted on	22/06/2015
Industry Sub-sector	Natural Rubber (NR) Plantation	Last reviewed on	22/06/2015
Occupation	Lab Chemist	Next review date	22/06/2017



National Occupational Standard



Overview

This unit is about reporting and documentation

To Carry Out 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 • 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>

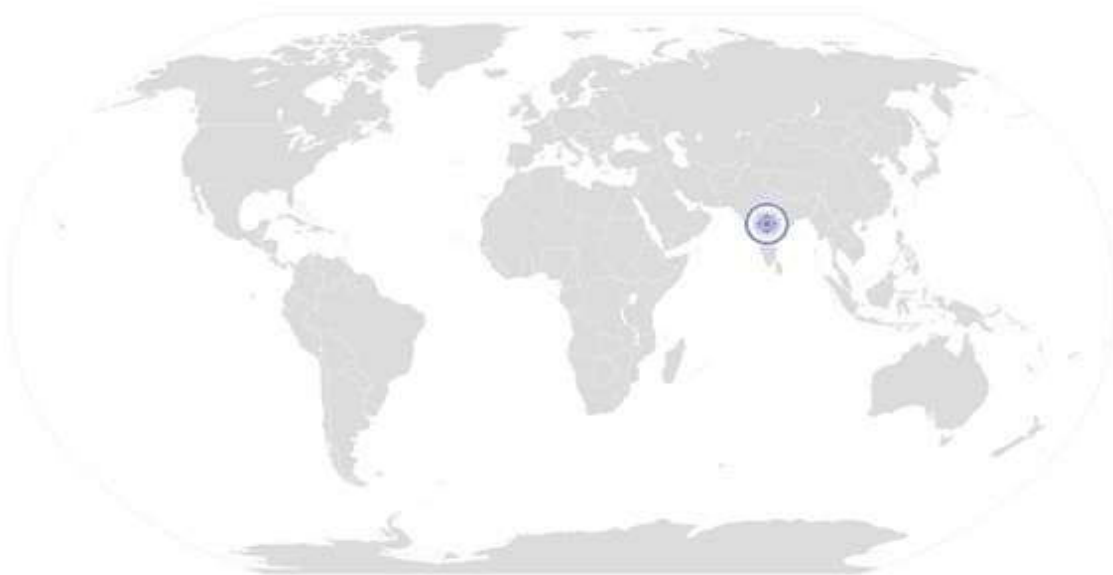
To Carry Out Reporting And Documentation

	<p>KB2. Various documents that need to be maintained</p> <p>KB3. Company procedure for filling/maintaining up the documents</p> <p>KB4. Procedures for reporting to the appropriate authority</p> <p>KB5. Procedures for recording damage, breakages etc</p> <p>KB6. Reporting incidents where standard operating procedures are not followed</p> <p>KB7. The importance of complete and accurate documentation</p> <p>KB8. How to maintain complete documentation accurately and within agreed timescales</p> <p>KB9. The importance of ensuring that the documents are correct</p> <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 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>

To Carry Out Reporting And Documentation

	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>
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
	NA
	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> <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>	

	Critical Thinking
	<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>



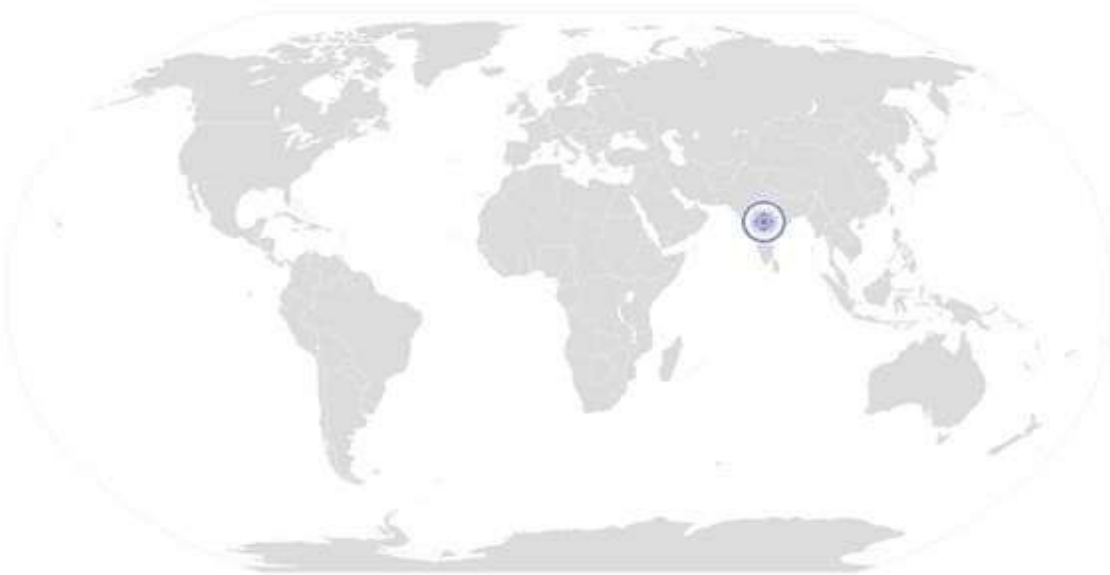
To Carry Out Reporting And Documentation

NOS Version Control

NOS Code	RSC / N 5002		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Industry	Drafted on	22/06/2015
Industry Sub-sector	Natural Rubber (NR) Plantation	Last reviewed on	22/06/2015
Occupation	Lab Chemist	Next review date	22/06/2017



National Occupational Standard



Overview

This unit is about carrying out quality checks

To Carry Out Quality Checks

Unit Code	RSC / N 5003
Unit Title (Task)	To carry out quality checks
Description	This unit is about carrying out quality control activities
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Inspection • Analysis • Reporting
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</p>

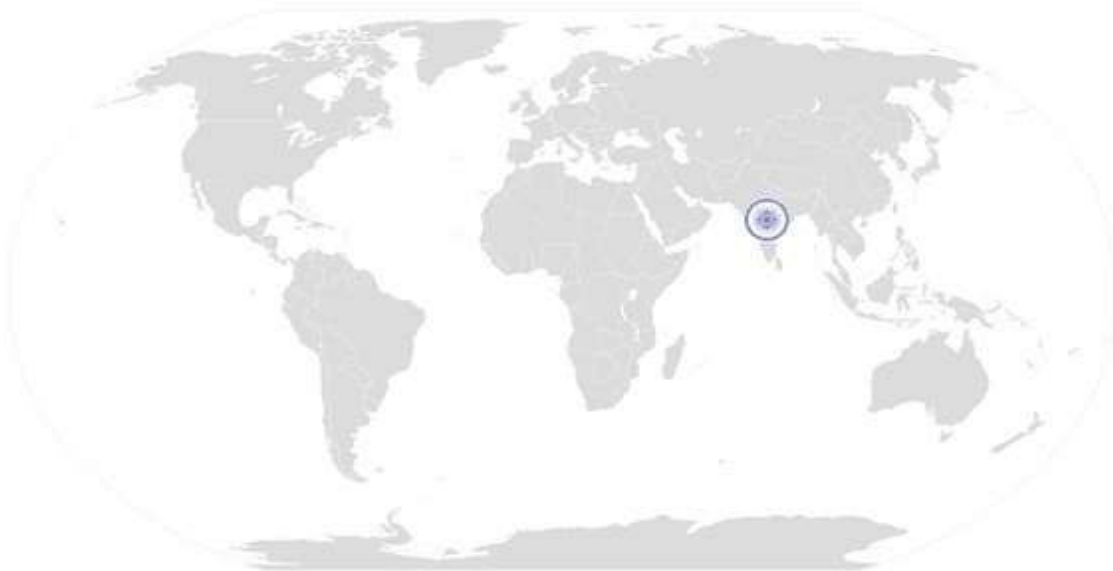
	<p>reference</p> <p>PC14. Review effectiveness of action taken</p> <p>PC15. Follow reporting procedures where the cause of defect cannot be identified</p>
Knowledge and Understanding (K)	
C. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The importance 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	<p style="text-align: center;">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>

To Carry Out Quality Checks

	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>
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
	NA
	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>	

To Carry Out Quality Checks

	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 Code	RSC / N 5003		
Credits(NSQF)	TBD	Version number	1.0
Industry	Rubber Industry	Drafted on	22/06/2015
Industry Sub-sector	Natural Rubber (NR) Plantation	Last reviewed on	22/06/2015
Occupation	Lab Chemist	Next review date	22/06/2017



CRITERIA FOR ASSESSMENT OF TRAINEES

Subsector	Lab Assistant
Qualification Pack	RSC/ Q 0302
Sector Skill Council	Rubber Skill Development Council

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

			Marks Allocation		
Nos	Element	Description	Total	Theory	Practical
RSC/ N 0309 To draw the samples and carry out lab analysis	Sample Collection	PC 1 Scientifically draw sample of the materials from the lot to be tested as per standard procedures (SOP)	6	2	4
		PC 2 Sampling should be as per process flow sheet with control points	2	2	0
		PC 3 Identify the sample by labeling/numbering as per SOP	2	0	2
		PC 4 Check shelf life of reagents	2	2	0
	Sample Integrity	PC 5 Identify the defect/problem in inappropriate sample	4	0	4
		PC 6 Identify factors that affect the integrity of sample (eg. temperature, moisture, contamination, contact with liquids)	2	1	1
		PC 7 Maintain integrity of the sample as per SOP.	2	1	1
		PC 8 Store sample for future/further testing as per SOP.	0	0	0
	Equipment	PC 9 Identify the most appropriate equipment for testing as per the SOP	4	2	2

	readiness	PC 10 Set up appropriate equipment/apparatus to be used for testing correctly as per IS / ISO / International Standard and SOP	2	0	2
		PC 11 Calibrate /verify/validate the testing equipment periodically as per SOP	4	0	4
		PC 12 Identify defective equipment/apparatus and take steps as per SOP	2	0	2
	Sample Testing	PC 13 Ensure that the reagents and materials used for testing are of standard quality and procured from approved sources.	4	2	2
		PC 14 Carry out tests as per SOP:	4	2	2
		PC 15 Ensure that test methods conform to the required quality and accuracy of testing.	2	1	1
		PC 16 Ensure that the approved raw materials conform to the specifications	4	2	2
	Analysis	PC 17 Keep tools and accessories ready before starting the analysis	2	1	1
		PC 18 Ensure that the accuracy of the information captured in records is as per SOP	2	0	2
		PC 19 Identify appropriate technique in evaluating result	4	2	2
		PC 20 Interpret the results correctly using the identified technique(s)	4	0	4
		PC 21 Based on test results, suggest steps to be taken to improve the quality of the end product	2	0	2
		PC 22 Assist the management in organizing quality control systems	2	0	2
	Recording and Reporting	PC 23 Record and maintain data as per company standards (SOP)	4	2	2
		PC 24 Ensure that reports/records are accurate and clear	4	0	4
		PC 25 Release or Hold the material as per finding for further processing.	5	2	3

	PC 26	Take up the results of the findings with supplier/QC in-charge/appropriate authority.	4	1	3
	PC 27	Inform concerned persons for rectifications, if needed in specified time limit	4	0	4
	PC 28	Correspondence with management, staff, workers, and clients.	1	0	1
	PC 29	Draft the certificate of analysis relating to raw materials, finished products, by products, effluents etc	2	2	0
Health & Safety	PC 30	Ensure availability of safety accessories including eye wash lotion	2	1	1
	PC 31	Ensure availability of raw materials/laboratory reagents Material Safety Data Sheet (MSDS) in the laboratory	0	0	0
	PC 32	Handle the equipments properly	4	2	2
	PC 33	Ensure samples and chemicals are carefully handled to avoid accidental spillage of chemicals.	2	0	2
	PC 34	Escalate matters in case of any accidents, spills etc.	1	0	1
	PC 35	Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational standards (SOP)	0	0	0
	PC 36	Precaution for dust / chemical inhaling and handling	2	0	2
Material Disposal	PC 37	Carry out disposal of waste and left over tested material safely as per SOP	2	0	2
	PC 38	Dispose all materials used in the experiment safely as per Health and Safety management system of the company	1	0	1

			100	30	70
RSC N / 5001 To carry out housek eeping	Pre housek eeping activitie s	PC1. Inspect the area while taking into account various surfaces	6	2	4
		PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain	4	2	2
		PC3. Ensure that the cleaning equipment is in proper working condition	5	2	3
		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	0	4
		PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces	6	2	4
		PC6. Inform the affected people about the cleaning activity	4	0	4
		PC7. Display the appropriate signage for the work being conducted	5	2	3
		PC8. Ensure that there is adequate ventilation for the work being carried out	4	2	2
		PC9. Wear the personal protective equipment required for the cleaning method and materials being used	5	2	3
	Operati ons	PC10. Use the correct cleaning method for the work area, type of soiling and surface	4	2	2
		PC11. Carry out cleaning activity without disturbing others	5	1	4
		PC12. Deal with accidental damage, if any, caused while carrying out the work	2	0	2
		PC13. Report to the appropriate person any difficulties in carrying out your work	4	1	3
		PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill	4	1	3
	Post housek eeping activitie s	PC15. Ensure that there is no oily substance on the floor to avoid slippage	6	2	4
		PC16. Ensure that no scrap material is lying around	4	0	4

		PC17. Maintain and store housekeeping equipment and supplies	4	2	2
		PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process	2	0	2
		PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements	3	1	2
		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	5	2	3
		PC21. Dispose the waste garnered from the activity in an appropriate manner	4	0	4
		PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly	4	2	2
	General	PC23. Maintain schedules and records for housekeeping duty	4	2	2
		PC24. Replenish any necessary supplies or consumables	2	0	2
			100	30	70
RSC N / 5002 To carry out reporting and documentation	Reporting	PC1 Report data/problems/incidents as applicable in a timely manner	8	4	4
		PC2 Report to the appropriate authority as laid down by the company	16	6	10
		PC3 Follow reporting procedures as prescribed by the company	8	4	4
	Recording and Documentation	PC4 Identify documentation to be completed relating to one's role	7	4	3
		PC5 Record details accurately and in appropriate format	10	4	6
		PC6 Complete all documentations within the stipulated time according to company procedure	15	6	9
		PC7 Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly	8	2	6
		PC8 Make sure that the documents are available to all appropriate authorities to inspect	10	4	6
	Informa	PC9 Respond to requests for information in an	8	4	4

	tion Security	appropriate manner whilst following organizational procedures			
		PC10 Inform the appropriate authority of requests for information received	10	2	8
			100	40	60
RSC N / 5003 To carry out quality checks	Inspecti on	PC1Ensure that total range of checks are regularly and consistently performed	8	4	4
		PC2 Use appropriate measuring instruments, equipment, tools, accessories etc ,as required	6	2	4
	Analysis	PC3Identify non-conformities to quality assurance standards	8	4	4
		PC4Identify potential causes of non- conformities to quality assurance standards	10	4	6
		PC5Identify impact on final product due to non- conformance to company standards	8	4	4
		PC6Evaluating the need for action to ensure that problems do not require	6	2	4
		PC7Suggest corrective action to address problem	8	4	4
		PC8 Review effectiveness of corrective action	6	2	4
	Reporti ng	PC9 Interpret the results of the quality check correctly	8	2	6
		PC10 Take up results of the findings with QC in charge/appropriate authority.	8	2	6
		PC11Take up the results of the findings within stipulated time	6	0	6
		PC12 Record of results of action taken	6	2	4
		PC13 Record adjustments not covered by established procedures for future reference	4	4	0
		PC14 Review effectiveness of action taken	4	2	2
		PC15 Follow reporting procedures where the cause of defect cannot be identified	4	2	2
			100	40	60