

## QUALIFICATIONS PACK- OCCUPATIONAL STANDARDS FOR PLASTICS 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- Machine Operator – Plastics Recycling

**SECTOR:** RUBBER

**SUB SECTOR:** PLASTICS PROCESSING

**OCCUPATION:** PLASTICS RECYCLING

**REFERENCE ID:** RSC/Q4902 (CPC/Q2904)

**ALIGNED TO:**

#### **Brief Job Description:**

The individual at work sets up and operates the Plastics Recycling machine to produce raw material by recycling various plastic wastes which is used for different product applications.

#### **Personal Attributes:**

This job requires the basic communication, numerical & computational abilities for the individuals to be result oriented. At all times he should strive to achieve highest quality standards. The operator is expected to be able to work in a factory environment and have the ability to work in standing position for long hours.

## Qualifications Pack for Machine operator-Plastics Recycling

Job Details	Qualifications Pack Code	RSC/Q4902 (CPC/Q 2904)		
	Job Role	Machine Operator Plastics Recycling		
	Credits (NSQF)	48	Version number	1.0
	Sector	Rubber	Drafted on	18/05/2016
	Sub Sector	Plastics Processing	Last reviewed on	26/12/2016
	Occupation	Plastics Recycling	Next review date	31/12/2021
	NSQC Clearance on	21/07/2016		

Job Role	Machine Operator Plastics Recycling
Role Description	Set up machine controls and operate Plastics Recycling Machine in order to produce raw material by recycling various plastic wastes as per approved specifications by Supervisor
NSQF level	4
Minimum Educational Qualifications*	VIII Standard
Maximum Educational Qualifications*	
Training (Suggested but not mandatory)	No previous training required
Minimum Job Entry Age	18
Experience	No previous experience required
Applicable National Occupational Standards (NOS)	<p><b>Compulsory:</b></p> <ol style="list-style-type: none"> <li><a href="#">RSC/N4901 (CPC/N2911) Understand basic concepts, job requirements &amp; basics knowledge related to process.</a></li> <li><a href="#">RSC/N4904 (CPC/N 2921): Perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product if any.</a></li> <li><a href="#">RSC/N4905 (CPC/N 2922): To conduct quality check and inspection of contamination levels of the recycled resins with reference to approved product.</a></li> <li><a href="#">RSC/N4101 (CPC/N0411):Maintain basic Healthy and safety practices at the Workplace,5S.</a></li> <li><a href="#">RSC/N4906(CPC/N 2923): Entrepreneurship in Plastics Recycling</a></li> <li><a href="#">RSC/N4504 (CPC/N0219)Basics of computer and data entry in MS OFFICE/office Open source suite Software</a></li> </ol> <p><b>Optional:</b> Nil</p>
Performance Criteria	As described in the relevant OS units

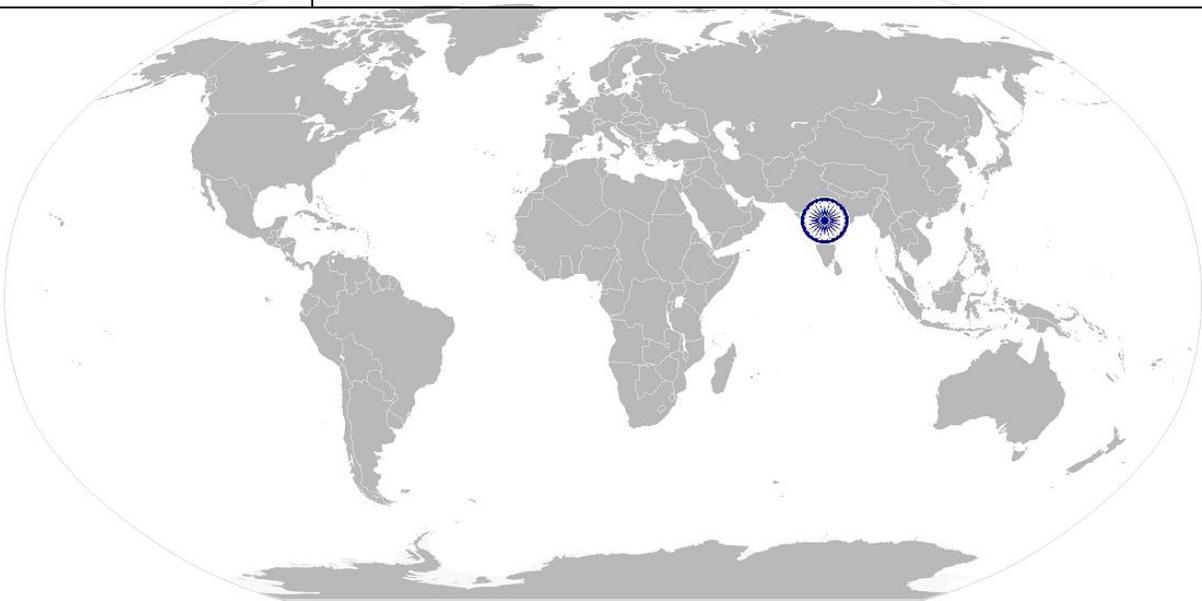
### Qualifications Pack for Machine operator-Plastics Recycling

Definitions	Keywords /Terms	Description
	Core Skills/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.
	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.
	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.
	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.
	Occupational Standards (OS)	OS are Occupational Standards which apply uniquely in the Indian context
	Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
	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.
	Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
Qualifications Pack(QP)	Qualifications Pack comprises the set of NOS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.	
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.	
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.	
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.	
Sub-functions	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.	
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.	

*Qualifications Pack for Machine operator-Plastics Recycling*

Acronyms

Unit Code	Unit Code is a unique identifier for a OS unit, which can be denoted with an 'N'
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
<b>Keywords /Terms</b>	<b>Description</b>
OS	Occupational Standard(s)
NVEQF	National Vocational Education Qualifications Framework
NVQF	National Vocational Qualifications Framework
NSQF	National Skills Qualifications Framework
OEM	Original Equipment Manufacturer
OS	Occupational Standard(s)
QP	Qualifications Pack



RSC/N4901 (CPC/N2911)

*Understand basic concept, job requirements  
and basics know how related to the process*

# National Occupational Standards



## Overview

**This unit is about understanding the job requirement and the activities & equipment associated with the process to complete the job requirement**

RSC/N4901 (CPC/N2911) *Understand basic concept, job requirements and basics know how related to the process*

National Occupational Standards	<b>Unit Code</b>	<b>RSC/N4901 (CPC/N2911)</b>
	<b>Unit Title (Task)</b>	<b>Understand basic concept, job requirements and basics knowhow related to the process</b>
	<b>Description</b>	This OS unit is about understanding the job requirement, operating the Plastics Recycling machine in order to produce recycled granules raw material by recycling various plastic wastes.
	<b>Scope</b>	This unit/ task covers the following: <ul style="list-style-type: none"> <li>Understanding the work order and the process requirement from the supervisor</li> <li>Arranging ,cleaning and drying the required Plastics waste for the process</li> <li>Cleaning the required dies and equipment</li> </ul>
	<b>Performance criteria (PC) w.r.t. the Scope</b>	
	<b>Element</b>	<b>Performance criteria</b>
	<b>Understand the work and the process requirements</b>	<b>To be competent, the user/individual on the job must be able to:</b> PC1. Interact with the operator in order to understand the production schedule PC2. Help in planning the day's production activities based on the operator's instructions PC3. Check availability of consumables and plastics materials for production in sufficient quantity as per production plan/operators instructions. PC4. Follow the does and don'ts of the manufacturing process as defined in sops/ Work Instructions or defined by operator. PC5. Check availability of the personal protective equipments (PPE) like Gloves, Goggles etc. PC6. Follow the molding procedure and process to be adopted for completing the work order from the operator by referring the Work Instruction document/ SOP manual.
	<b>Arrange the Plastic wastes for recycling and die required for the same</b>	PC7. Ensure that the required Plastics Waste material is procured from the store before starting the process PC8. Handle the Die & Pelletizer etc. Required for executing the required operation and ensure that the same is available for operation. PC9. Collect the Die from tool room, If Die is not available. PC10. Install and bolt the Die and pelletizer etc. In place. PC11. Add the Plastics Waste material in the machine using material loader or by manual feeding.
	<b>Clean the apparatus and the components before executing the process</b>	PC12. Ensure Die and Pelletizer etc. are clean if not clean with soft cotton cloth. PC13. Ensure cleaning of the other auxiliaries tools, (if any) before the initiation of the Recycling and pelletizing process PC14. Ensure cleaning of the area around the apparatus for any oil, grease, combustile substances etc. so as to prevent any accident PC15. Ensure availability of the coolant and working of valves to circulate the coolant

RSC/N4901 (CPC/N2911) *Understand basic concept, job requirements and basics know how related to the process*

	to cool and solidify plastics filaments for pelletizing.
<b>Check plastic waste and apparatus for Operations</b>	PC16. Identify the Plastics Waste material like types dust, Moisture and metal contaminants etc. required for executing the activity.
<b>Escalations of queries on the given job</b>	PC17. Refer the queries to supervisor if they cannot be resolved by the operator PC18. Confirm self - understanding to the operator once the query is resolved so that all doubts & queries can be resolved before the actual process execution
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Company's code of conduct KA2. Different types of products manufactured by the company KA3. Functional processes like Procurement, Store management, inventory management, quality management, incentives, personnel management KA4. Importance of individual's role in the work flow KA5. Organization culture KA6. Company's reporting structure KA7. Company's documentation policy
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: KB1. General principles of recycling procedure and process knowledge of plastic wastes loading and unloading procedure. KB2. Types of plastics wastes and the additives and filler grades to be used & tonnage and capacity of the machine being operated. KB3. Different types of tools and machinery to process the plastic wastes and pelletize the output KB4. Various types of cooling systems and their properties. KB5. Inspection of the contaminants in the output KB6. How to perform recycling machine safety check KB7. Advanced equipment like Sensors, ejectors, computing systems and user interfaces for detect the specific polymer within a mixed stream KB8. Hazards and safety aspects involved in tape production and usage of relevant PPEs KB9. Safety procedures to be adopted to complete mould removal process
<b>Skills (S) [Optional]</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Reading and Writing Skills</b> The user/ individual on the job needs to know and understand how to: SA1. Read warnings, instructions and other text material on product labels, components etc. SA2. Enter into the history card details of the fault identified in the recycled pellets manufactured and read equipment manuals and process documents to understand the equipment and processes SA3. Read instructions especially safety instructions especially symbols while using

RSC/N4901 (CPC/N2911) *Understand basic concept, job requirements and basics know how related to the process*

	the equipment in the plant area logs.
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to: SA4. Discuss task lists, schedules, and work-loads with co-workers SA5. Question internal customers/ Shop floor supervisor appropriately in order to understand the nature of the problem and make a diagnosis SA6. Avoid using jargon, slang or acronyms when communicating with a supervisor /fellow subordinates etc. Unless it is required.
<b>B. Professional Skills</b>	<b>Decision Making and Problem solving</b>
	Detect problems in day to day tasks: SB1. Support supervisor in using specific problem solving techniques and detailing out the problems SB2. Discuss possible solution with the supervisor for problem solving SB3. Make decisions in emergency conditions in case the supervisor is not available (as per the authority matrix defined by the Organization)
	<b>Plan and Organize</b>
	The user/individual on the job needs to know and understand how to: SB4. Plan and organize the work order and jobs received from the internal customers SB5. Plan and organize the design documents received from internal customers SB6. Organize all process/ equipment manuals so that sorting out
	<b>Desire to learn and take initiatives</b>
	The user/individual on the job needs to know and understand how to: SB7. Follow instructions and work on areas of improvement identified SB8. Complete the assigned tasks with minimum supervision SB9. Complete the job defined by the supervisor within the timelines and quality
	<b>Judgments and Critical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB10. Use common sense and make judgments during day to day basis SB11. Use reasoning skills to identify and resolve basic problems SB12. Use intuition to detect any potential problems which could arise during operations.

RSC/N4901 (CPC/N2911) *Understand basic concept, job requirements and basics know how related to the process*

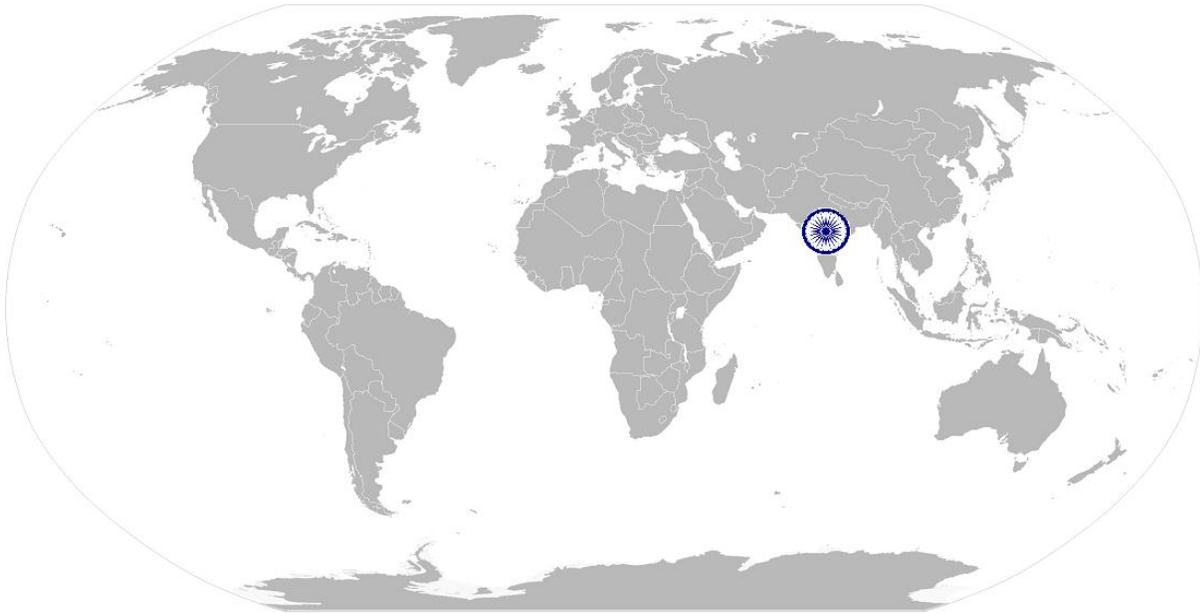
## NOS Version Control

<b>NOS Code</b>	RSC/N4901 (CPC/N2911)		
<b>Credits (NSQF)</b>	9.5	<b>Version number</b>	1.0
<b>Sector</b>	Rubber	<b>Drafted on</b>	18/05/2016
<b>Sub Sector</b>	Plastics Processing	<b>Last reviewed on</b>	26/12/2016
<b>Occupation</b>	Plastics Recycling	<b>Next review date</b>	31/12/2021



*RSC/N4904 (CPC/N 2921) Perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product if any.*

# National Occupational Standards



## Overview:

This unit is about perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product as per the final output specifications and the standards specified by the organization.

*RSC/N4904 (CPC/N 2921) Perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product if any.*

National Occupational Standards	<b>Unit Code</b>	<b>RSC/N4904 (CPC/N 2921)</b>
	<b>Unit Title (Task)</b>	<b>Perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product as per the final output specifications and the standards specified by the organization.</b>
	<b>Description</b>	This OS unit is about produce good quality recycled granules in line with the required specifications
	<b>Scope</b>	The recycling machine operator will be responsible for <ul style="list-style-type: none"> <li>• Checking the operations of the equipment</li> <li>• Feeding the plastic wastes as per requirement</li> <li>• Set up and operate the plastics recycling machine</li> <li>• Perform visual inspection of the output products</li> <li>• Achieve productivity, quality and safety standards as per company's norms</li> <li>• Report problems to supervisor</li> </ul>
	<b>Performance criteria (PC) w.r.t. the Scope</b>	
	<b>Element</b>	<b>Performance criteria</b>
	<b>Check the operation of the equipment Used in plastics recycling process</b>	The individual on the job should be able to: PC1. Check for operation of recycling apparatus like hopper, heaters, washing equipment etc. and inspection of the plastics sorting equipment like sensors, ejectors etc.as per the checklist provided PC2. Fix the desired die to the extrusion machine in order to achieve the desired operation as per the Work Instructions/ SOPs PC3. Make modifications in the process parameters ( by selecting the right program from the machine control system)
	<b>Feed the cleaned, dried and separated plastic waste in the hopper and conduct a trial with the setting of the parameter</b>	PC4. Perform preheating of sorted plastic waste ( In case of Engineering plastics) PC5. Ensure the plastic waste are mixed with additives, fillers (if any) before being fed into the hopper PC6. Conduct a test process and produce a sample output as per requirement. PC7. Ensure that the inspection and dimension of the output pellets are inspected and measured as per the process given in the Work Instructions/ SOP PC8. Start the production process if the test product or pellet matches the quality of the final output.
	<b>Conduct the actual process with final setting as per product approval</b>	PC9. Feed the required operation code in the apparatus for heaters to melt the plastic waste at the predefined temperature PC10. Enter recycling temperature, volume of plastic waste and weight settings in the machine as per data sheet PC11. Enter machine and process parameters such as pressure and time as per the data sheet PC12. Add master batch and fillers as per standard composition and mix it well PC13. Follow the check-list procedure to ensure quality of final product
	<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b>	The user/individual on the job needs to know and understand: KA1. Departments code of conduct	

*RSC/N4904 (CPC/N 2921) Perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product if any.*

(Knowledge of the company / organization and its processes)	KA2. Different types machines in the company, its specifications etc. KA3. Department documentation policy
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: KB1. General principles of recycling machine operations, Startup, Shutdown etc. KB2. Process parameters setting, producing good product etc.
<b>Skills (S) [Optional]</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Reading and Writing Skills</b>
	The user/ individual on the job needs to know and understand how to: SA1. Read and interpret engineering drawing and sketches SA2. Read equipment manuals and process documents to understand the equipment and processes better SA3. Read instructions especially safety instructions especially symbols while using the equipment in the plant area SA4. Read internal drawings send by internal customers ( other functions within the organization) SA5. document information from the sketches and engineering drawings SA6. Write log book in terms of output quantity, set up parameters, machine setting parameters and loss details etc. SA7. Prepare draft drawings for the final output product SA8. Write drawings to internal customers on the requirement of recycling plastic, apparatus etc. SA9. Note measurements, equipment panel readings for various process parameters in the required reporting formats SA10. Visualize final product output and hence decide on the key steps to be followed SA11. Safety precautions to be taken for entire extrusion, post extrusion& loom machine setting activities. SA12. Avoid defects in machine operation and final product manufacture
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to: SA13. Discuss task lists, schedules, and work-loads with co-workers SA14. Question internal customers/ Moulding shop supervisor appropriately in order to understand the nature of the problem and make a diagnosis
<b>B. Professional Skills</b>	<b>Decision Making and Problem solving</b>
	The user/individual on the job needs to know and understand how to: SB1. Detect problems in day to day tasks SB2. Support supervisor in using specific problem solving techniques and detailing out the problems SB3. Discuss possible solution with the supervisor for problem solving SB4. Make decisions in emergency conditions in case the supervisor is not available( as per the authority matrix defined by the organization)

*RSC/N4904 (CPC/N 2921) Perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product if any.*

	<p><b>Plan and Organize</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. Plan and organize the work order and jobs received from the internal customers</p> <p>SB6. Plan and organize the design documents received from internal Customers</p> <p>SB7. Organize all process/ equipment manuals so that sorting out information is Fast</p> <p>SB8. Organize apparatus etc. In an orderly manner at proper designated areas Analysis of defects that occur in the final products and Correlate them to Problems with the recycling machine</p> <p>SB9. Combine machine dependent and machine independent settings</p> <p>SB10. Visualize final product output and hence decide on the key steps to be followed</p>
	<p><b>Desire to learn and take initiatives</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB11. Follow instructions and work on areas of improvement identified</p> <p>SB12. Complete the assigned tasks with minimum supervision</p> <p>SB13. Complete the job defined by the supervisor within the timelines and Quality</p>
	<p><b>Analytical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB14. Visualize the final job product after understanding the given specification</p> <p>SB15. Finalize the optimum levels of physical parameters so that the job output meets the prescribed job standards</p>

*RSC/N4904 (CPC/N 2921) Perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product if any.*

## **NOS Version Control**

<b>NOS Code</b>	<b>RSC/N4904 (CPC/N 2921)</b>		
<b>Credits (NSQF)</b>	<b>16.85</b>	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	<b>Rubber</b>	<b>Drafted on</b>	<b>18/05/2016</b>
<b>Sub Sector</b>	<b>Manufacturing / Plastics Processing</b>	<b>Last reviewed on</b>	<b>26/12/2016</b>
<b>Occupation</b>	<b>Plastics Recycling</b>	<b>Next review date</b>	<b>31/12/2021</b>

*RSC/N4905 (CPC/N 2922) Conduct quality check and inspection of contamination levels of the recycled resins with reference to approved product.*

# National Occupational Standards



## Overview

**This unit is about conducting Quality Checks and inspection of the finished products produced with reference to the approved product.**

*RSC/N4905 (CPC/N 2922) Conduct quality check and inspection of contamination levels of the recycled resins with reference to approved product.*

National Occupational Standards	<b>Unit Code</b>	<b>RSC/N4905 (CPC/N 2922)</b>
	<b>Unit Title (Task)</b>	<b>Conduct quality checks and inspection of the finished products with reference to the approved product.</b>
	<b>Description</b>	This OS unit is about inspecting the finished pellets produced for any contamination and damages, deformities and further grinded produced so that the defective/waste can be recycled and right quality components can be supplied to <ol style="list-style-type: none"> <li>The customer/ end user</li> <li>Internal manufacturing team</li> </ol>
	<b>Scope</b>	The plastics recycling operator will be responsible for <ul style="list-style-type: none"> <li>Inspecting the finished pellets</li> <li>keeping records of production and defects</li> <li>The role holder will interact with maintenance team and material management team for better output</li> </ul>
	<b>Performance criteria (PC) w.r.t. the Scope</b>	
	<b>Element</b>	<b>Performance criteria</b>
	<b>Inspection of finished goods to detect any deviations from the approved product</b>	The individual on the job should be able to: PC1. Compare texture, colour, surface properties, hardness and strength etc. with the given approved product.
	<b>Record log of defective products and reprocess it again</b>	PC2. Note down the observations of the basic inspection process and Identify pieces which are OK and also not meeting the specified standards PC3. Discard the batch which are contaminated and reprocess it again. PC4. Maintain records of each category of work outputs as per the batch etc.
	<b>Perform Batch Quality Procedure</b>	PC5. Escalate all issues related to change in surface properties, Tensile strength etc. so that the manufacturing equipment can be reset to achieve the specified output. PC6. Provide first and last output from each batch to the lab for quality check on its composition, contamination and properties etc. PC7. Obtain clearance for the entire batch from the lab
	<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <ol style="list-style-type: none"> <li>KA1. Relevant standards specified for the manufacturing process</li> <li>KA2. Basic process followed for inspection of the lot.</li> <li>KA3. Quality Management policy of the organization.</li> </ol>	
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <ol style="list-style-type: none"> <li>KB1. Processes and procedures followed for manufacturing the lot/ pellets.</li> <li>KB2. Techniques of using measurement instruments like rulers, Vernier calipers, micrometers and sorting equipment's like sensors, ejectors etc.</li> <li>KB3. Methods to identify quality defects in the lot.</li> <li>KB4. The Impact of defects on the overall working of the plastics recycling</li> </ol>	

*RSC/N4905 (CPC/N 2922) Conduct quality check and inspection of contamination levels of the recycled resins with reference to approved product.*

	<p>machine.</p> <p>KB6. Various quality standards used by the organization</p>
<b>Skills (S) [Optional]</b>	
<b>A. Core Skills/ Generic Skills</b>	<p><b>Writing Skills</b></p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Note the number of lot with defects which can be reprocess to number of lot which will be discarded.</p>
	<p><b>Reading Skills</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA2. Read process and equipment manuals, material data sheets etc. to understand the working of the equipment &amp; material properties.</p>
	<p><b>Oral Communication (Listening and Speaking skills)</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. Inform supervisor of any quality related defects arising out of the manufacturing process.</p> <p>SA4. Question internal customers/ supervisor appropriately in order to understand the nature of the problem and make a diagnosis.</p>
	<p><b>Plan and Organize</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Plan and organize the work order and jobs received from the supervisor</p> <p>SB2. Organize all process/ equipment manuals so that sorting/ accessing information is easy</p> <p>SB3. Keep fixtures, tools, drawings, Work Instructions, SOP manuals as per the part number, colour codes etc. as defined under the 5S systems</p>
<b>B. Professional Skills</b>	<p><b>Critical Thinking</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. Use common sense and make judgments during day to day basis use reasoning skills to identify and resolve basic problems</p> <p>SB5. Carefully analyze the body part for various assembling defects at every station</p> <p>SB6. Carefully analyze each defect observed during inspection and try to find solution for the defect along with the assembly line operator</p>
	<p><b>Quality Consciousness</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. Identify defective/contaminated parts in the manufacturing line by comparing manufactured (lot/extrudate) with the work standard</p> <p>SB8. Link the defect observed with the overall impact on the performance of the (lot/extrudate)</p>

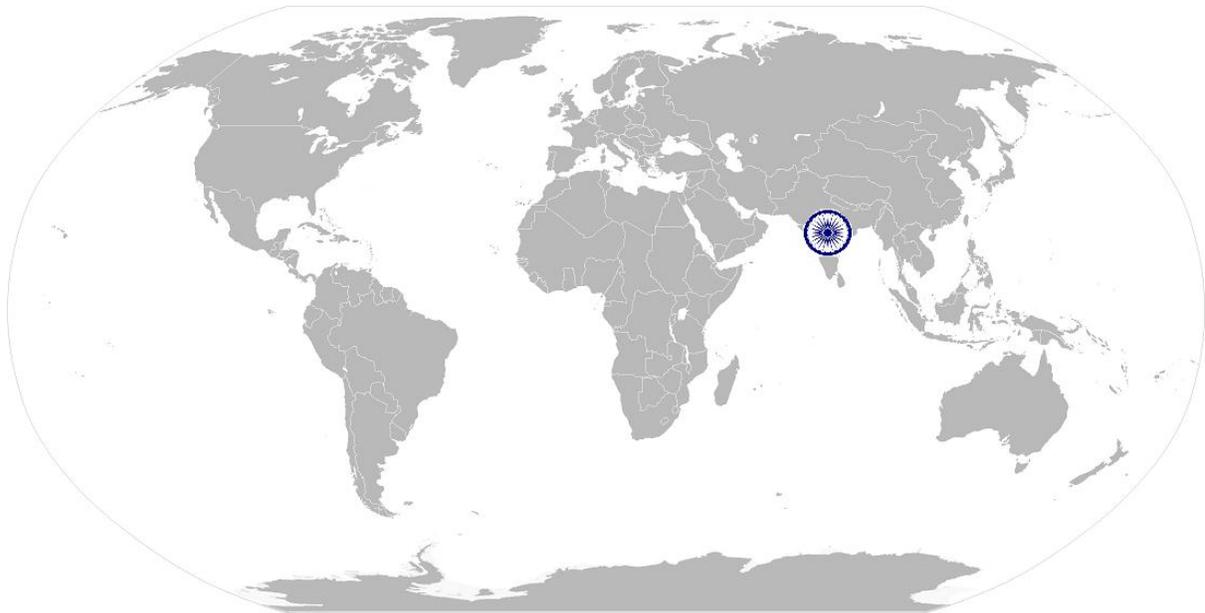
*RSC/N 4905 (CPC/N 2922) To conduct quality check and inspection of contamination levels of the recycled resins with reference to approved product.*

## **NOS Version Control**

<b>NOS Code</b>	<b>(RSC/N4905 (CPC/N 2922))</b>		
<b>Credits (NSQF)</b>	<b>6</b>	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	<b>Rubber</b>	<b>Drafted on</b>	<b>18/05/2016</b>
<b>Sub Sector</b>	<b>Plastics Processing</b>	<b>Last reviewed on</b>	<b>26/12/2016</b>
<b>Occupation</b>	<b>Plastics Recycling</b>	<b>Next review date</b>	<b>31/12/2021</b>

*RSC/N4101 (CPC/N0411) Maintain basic health and safety practices at the workplace, 5S.*

# National Occupational Standards



## Overview

**This unit is about establishing a Safe, Healthy and Environment friendly workplace**

*RSC/N4101 (CPC/N0411) Maintain basic health and safety practices at the workplace, 5S.*

National Occupational Standards	<b>Unit Code</b>	<b>RSC/N4101 (CPC/N 0411)</b>
	<b>Unit Title (Task)</b>	<b>Maintain basic health and safety practices at the workplace, 5S</b>
	<b>Description</b>	<p>This OS unit is about knowledge and practices relating to health, safety and security that candidates need to use in the workplace. It covers responsibilities towards self, others, assets and the environment.</p> <p>It includes understanding of risks &amp; hazards in the workplace, along with common techniques to minimize risk, deal with accidents, emergencies etc. It covers knowledge of fire safety, common first aid applications and safe practice.</p> <p>This OS is about ensuring all 5S activities both at the shop floor and the office area to facilitate increase in work productivity.</p>
	<b>Scope</b>	<p>The role holder will be responsible for</p> <ul style="list-style-type: none"> <li>• Health and safety procedure.</li> <li>• Fire safety procedure.</li> <li>• Emergencies, rescue and first aid procedures.</li> <li>• Ensure sorting, stream lining, storage and documentation, cleaning, standardization and sustenance across the plant premises of the organization.</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>		
<b>Element</b>	<b>Performance Criteria</b>	
<b>Health and safety</b>	<p>The individual on the job should ensure to:</p> <p>PC1. Wear protective clothing/equipment for specific tasks and work conditions</p> <p>PC2. Safe working practices while dealing with hazards to ensure the safety of Self and others.</p> <p>PC3. Ensure good housekeeping practices at all times</p>	
<b>Fire safety</b>	<p>The individual on the job should be able to:</p> <p>PC4. Use the various appropriate fire extinguishers on different types of fires correctly</p> <p>PC5. Demonstrate rescue techniques applied during fire hazard, demonstrate good housekeeping in order to prevent fire hazards, demonstrate the correct use of a fire extinguisher.</p>	
<b>Emergencies, rescue and first aid procedures.</b>	<p>PC6. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise, and Identify areas in the plant which are potentially hazardous / unhygienic in nature. Conduct regular checks with support of the maintenance team on machine health to identify potential hazards due to wear and tear of machine.</p> <p>PC7. Inform the concerned authorities on the potential risks identified in the processes, workplace area/ layout, materials used etc, Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations.</p> <p>PC8. Create awareness amongst others by sharing information on the identified</p>	

**RSC/N4101 (CPC/N0411) Maintain basic health and safety practices at the workplace, 5S.**

	risks.
<b>Ensure sorting, stream lining, storage and documentation, cleaning, standardization and sustenance across the plant premises of the organization.</b>	<p>PC9. Follow the sorting process and check that the tools, fixtures &amp; jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces.</p> <p>PC10. Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions</p> <p>PC11. Follow the technique of waste disposal and waste storage in the proper bins as per SOP</p> <p>PC12. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places</p> <p>PC13. Sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ work instructions</p> <p>PC14. Ensure that areas of material storage are not overflowing</p> <p>PC15. Ensure properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required</p> <p>PC16. Return of extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area</p> <p>PC17. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards</p> <p>PC18. Follow the proper labelling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists</p> <p>PC19. Ensure to check the items in the respective areas have been identified as broken or damaged</p> <p>PC20. Follow the given instructions and check for labelling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc.</p> <p>PC21. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions</p>
<b>Knowledge and Understanding (K)</b>	
<b>B. Organizational Context</b> (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. The relevant standards, procedures and policies related to Health, Safety and Environment followed in the company KA2. The emergency handling procedures & hierarchy for escalation
<b>B. Technical Knowledge</b>	<b>The user/individual on the job needs to know and understand:</b> KB1. The basic knowledge of Safety procedures (fire fighting, first aid) within the

*RSC/N4101 (CPC/N0411) Maintain basic health and safety practices at the workplace, 5S.*

	<p>organization</p> <p>KB2. The basic knowledge of various types of PPEs and their usage</p> <p>KB3. The basic knowledge of risks/hazards associated with each occupation in the organization</p> <p>KB4. The knowledge of personal hygiene and how an individual contribute towards creating a highly safe and clean working environment the individual on the job needs to know and understand.</p> <p>KB5. The meaning of “hazards” and “risks”</p> <p>KB6. The health and safety hazards commonly present in the work environment and related precautions</p> <p>KB7. The possible causes of risk, hazard or accident in the workplace and why risk and/or accidents are possible</p> <p>KB8. The Possible causes of risk and accident (due to oil leakage)</p> <p>KB9. Methods of accident prevention</p> <p>KB9. Safe working practices when working with tools and machines</p> <p>KB10. Safe working practices while working at various hazardous sites</p> <p>KB11. The general health and safety equipment in the workplace</p> <p>KB12. Various dangers associated with the use of electrical equipment</p> <p>KB13. Preventative and remedial actions to be taken in the case of exposure to toxic materials</p> <p>KB14. The Importance of using protective clothing/equipment while working</p> <p>KB15. Precautionary activities to prevent the fire accident</p> <p>KB16. Various causes of fire</p> <p>KB17. The techniques of using the different fire extinguishers</p> <p>KB18. The different methods of extinguishing fire</p> <p>KB19. The different materials used for extinguishing fire</p> <p>KB20. Rescue techniques applied during a fire hazard</p> <p>KB21. Various types of safety signs and what they mean</p> <p>KB22. The appropriate basic first aid treatment relevant to the condition e.g. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries</p> <p>KB23. The content of written accident report</p> <p>KB24. Potential injuries and ill health associated with incorrect manual handling</p> <p>KB25. Safe lifting and carrying practices</p> <p>KB26. Personal safety, health and dignity issues relating to the movement of a person by others</p> <p>KB27. Potential impact to a person who is moved incorrectly</p> <p>KB28. The basic knowledge of 5S procedures</p> <p>KB29. The various types 5s practices followed in various areas</p> <p>KB30. The Understand to the 5S checklists provided in the department/ team</p> <p>KB31. To identify useful &amp; non useful items</p> <p>KB32. The knowledge of labels , signs &amp; colours used as indicators</p> <p>KB33. The knowledge on how to sort and store various types of tools, equipment, material etc.</p> <p>KB34. To identify various types of waste products</p>
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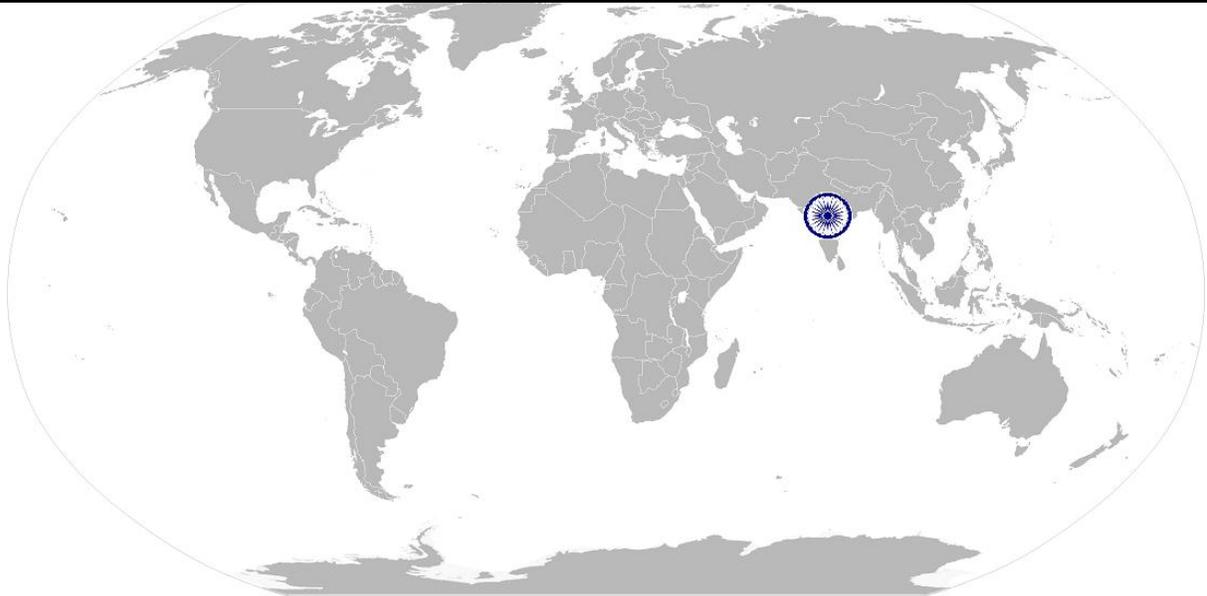
*RSC/N4101 (CPC/N0411) Maintain basic health and safety practices at the workplace, 5S.*

	<p>KB35. Understand to the impact of waste/ dirt/ dust/unwanted substances on the process/ environment/ machinery/ human body.</p> <p>KB36. The best ways of cleaning &amp; waste disposal</p>
<b>Skills (S) [Optional]</b>	
<b>Element</b>	<b>Skills</b>
<b>C. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/ individual on the job needs to know and understand how to: SA1. Understand basic level notes and observations.
	<b>Reading Skills</b>
	<b>The user/individual on the job needs to know and understand about the:</b> SA2. Safety instructions put up across the plant premises SA3. Safety precautions mentioned in equipment manuals and panels and understand the potential risks associated
	<b>Oral Communication (Listening and Speaking skills)</b>
	<b>The user/individual on the job needs to know and understand how to:</b> SA4. Communicate information to team members effectively SA5. Inform employees in the plant and concerned functions about events, Incidents & potential risks observed related to Safety, Health and Environment. SA6. Question operator/ supervisor in order to understand the safety related issues SA7. Attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
<b>D. Professional Skills</b>	<b>Plan and Organize</b>
	<b>The user/individual on the job needs to know and understand how to:</b> SB1. Process the work order and jobs received from the internal customers. SB2. Design documents received from internal customers SB3. Understand & organize all process/ equipment manuals so that sorting out information is fast.
	<b>Critical Thinking</b>
	<b>The user/individual on the job needs to know and understand how to:</b> SB4. Use common sense and make judgments during day to day basis SB5. Use intuition to detect any potential problems which could arise during operations
	<b>Problem solving</b>
	<b>The user/individual on the job needs to know and understand how to:</b> SB6. Follow instructions and work on areas of improvement identified SB7. Complete the assigned tasks with minimum supervision SB8. Complete the job defined by the supervisor within the timelines and quality norms

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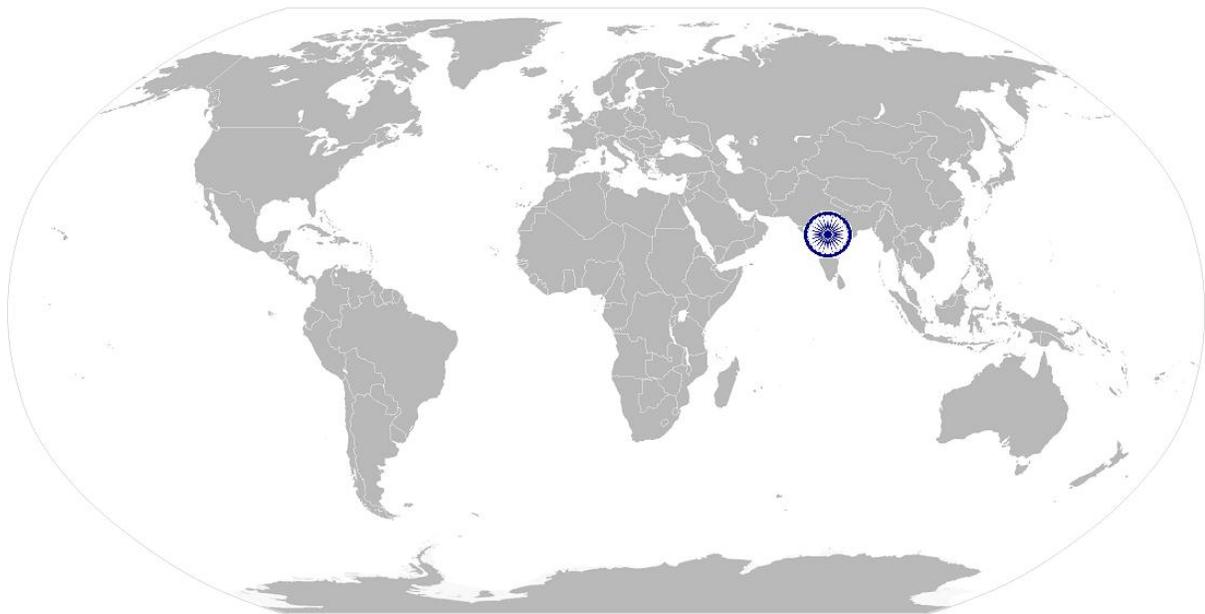
## NOS Version Control

<b>NOS Code</b>	RSC/N4101 (CPC/N0411)		
<b>Credits (NSQF)</b>	6.5	<b>Version number</b>	1.0
<b>Sector</b>	Rubber	<b>Drafted on</b>	18/05/2016
<b>Sub Sector</b>	Plastics Processing	<b>Last reviewed on</b>	26/12/2016
<b>Occupation</b>	Plastics Recycling	<b>Next review date</b>	31/12/2021



*RSC/N4906(CPC/N 2923) Entrepreneurship in Plastics Recycling*

# National Occupational Standards



## Overview

This unit is about Entrepreneurship in Plastics Recycling

*RSC/N4906(CPC/N 2923) Entrepreneurship in Plastics Recycling*

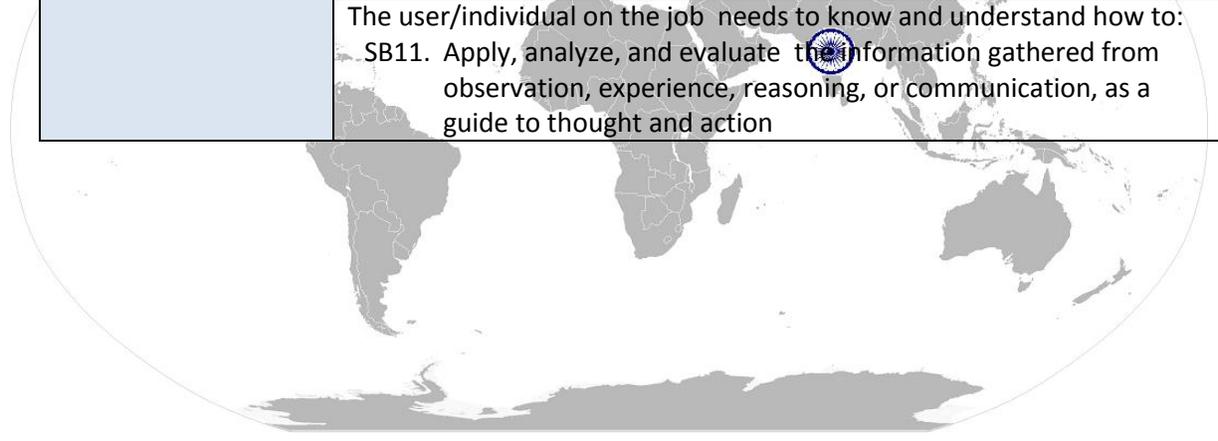
National Occupational Standards	<b>Unit Code</b>	<b>RSC/N4906(CPC/N 2923)</b>
	<b>Unit Title (Task)</b>	<b>Entrepreneurship in Plastics Recycling</b>
	<b>Description</b>	This OS unit is about entrepreneurship in Plastic Recycling
	<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>• Market Information Management</li> <li>• Client Relation Management</li> <li>• Marketing</li> </ul>
	<b>Performance Criteria (PC) w.r.t. the Scope</b>	
	<b>Element</b>	<b>Performance Criteria</b>
	<b>Plastic Recycling Economics and Finances</b>	To be competent, the individual on the job must be able to: <ul style="list-style-type: none"> <li>PC1. Plan and Budgeting with reference to various Plastic wastes for recycling</li> <li>PC2. Keep books of accounts and various transactions</li> <li>PC3. Arrange for financial assistance from various quarters in the light of various schemes available in setup for Plastic Recycling</li> </ul>
	<b>Market Information Management</b>	<ul style="list-style-type: none"> <li>PC4. Ascertain the prices of various inputs and products from the market</li> <li>PC5. Assess the influence of various quality parameters of products/pellets on the product pricing</li> </ul>
	<b>Client Relation Management</b>	<ul style="list-style-type: none"> <li>PC6. Establish cordial relations with various clients for the benefit of industry</li> <li>PC7. Assess the needs and requirement of the clients and assess one's own unique selling proposition</li> <li>PC8. Extract critical market information that is otherwise not in the public domain</li> </ul>
	<b>Marketing</b>	<ul style="list-style-type: none"> <li>PC9. Choose appropriate buyer in a given situation of market parameters</li> <li>PC10. Identify best ways of attracting market price for one's produce</li> <li>PC11. Ensure quality before &amp; during the sale activity to ensure good returns.</li> </ul>
	<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context (Knowledge of the company / organization and its process)</b>	<b>Plastics Recycling Economics and Finances</b> The individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. Basic steps of Plastic Recycling planning and budgeting</li> <li>KA2. Basic principles of keeping books of accounts</li> <li>KA3. Various Government and other schemes / products / offers available for startup and support of Plastic Recycling.</li> </ul>	
<b>B. Technology Knowledge</b>	<b>Market Information Management</b> The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KB1. Different players selling various Plastic Recycling products and their prices</li> <li>KB2. Different players buying Plastic Recycling products &amp; their prices</li> <li>KB3. Various methods of updating oneself with market information</li> </ul>	

*RSC/N4906(CPC/N 2923) Entrepreneurship in Plastics Recycling*

	<p>such as mobile, Internet etc.</p> <p>KB4. Usage, contact with key informants, tie up government agencies etc.</p>
	<p><b>Client Relation Management</b></p> <p>The user/individual on the job needs to know and understand:</p> <p>KB5 The needs and options available with various clients</p> <p>KB6. The advantages and disadvantages of doing business with each one of the clients</p>
	<p><b>Marketing</b></p> <p>The user/individual on the job needs to know and understand:</p> <p>KB7. The quality parameters of Plastic Recycled products and their market prices</p> <p>KB8. Pricing mechanism of various buyers of Plastic Recycled products</p> <p>KB9. Costing of various logistic arrangements towards the sale Plastic Recycled products at different markets and consumer points.</p>
<p><b>Skills (S) [Optional]</b></p>	
<p><b>A. Core Skills/ Generic Skills</b></p>	<p><b>Writing Skills</b></p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Mention the data which are required for record keeping purpose</p> <p>SA2. Report problems to the appropriate personnel in a timely manner</p> <p>SA3. Write descriptions and details about incidents in reports</p>
	<p><b>Reading Skills</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. Keep abreast with the latest knowledge by reading brochures, pamphlets and product information sheets</p> <p>SA5. Read instruction manuals for hand tool and equipment's</p> <p>SA6. Read instructions on work orders and procedures</p>
	<p><b>Oral Communication (Listening and Speaking skills)</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA7. Discuss task lists, schedules, and work-loads with co-workers</p> <p>SA8. Question customers appropriately in order to understand the nature of the problem and make a diagnosis</p> <p>SA9. Give clear instructions to customers</p> <p>SA10. Keep customers informed about progress</p> <p>SA11. Avoid using jargon, slang or acronyms when communicating with a customer, unless it is required</p>
<p><b>B. Professional Skills</b></p>	<p><b>Decision Making</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Make decisions pertaining to the concerned area of work</p>
	<p><b>Plan and Organize</b></p> <p>The user/individual on the job needs to know and understand:</p>

*RSC/N4906(CPC/N 2923) Entrepreneurship in Plastics Recycling*

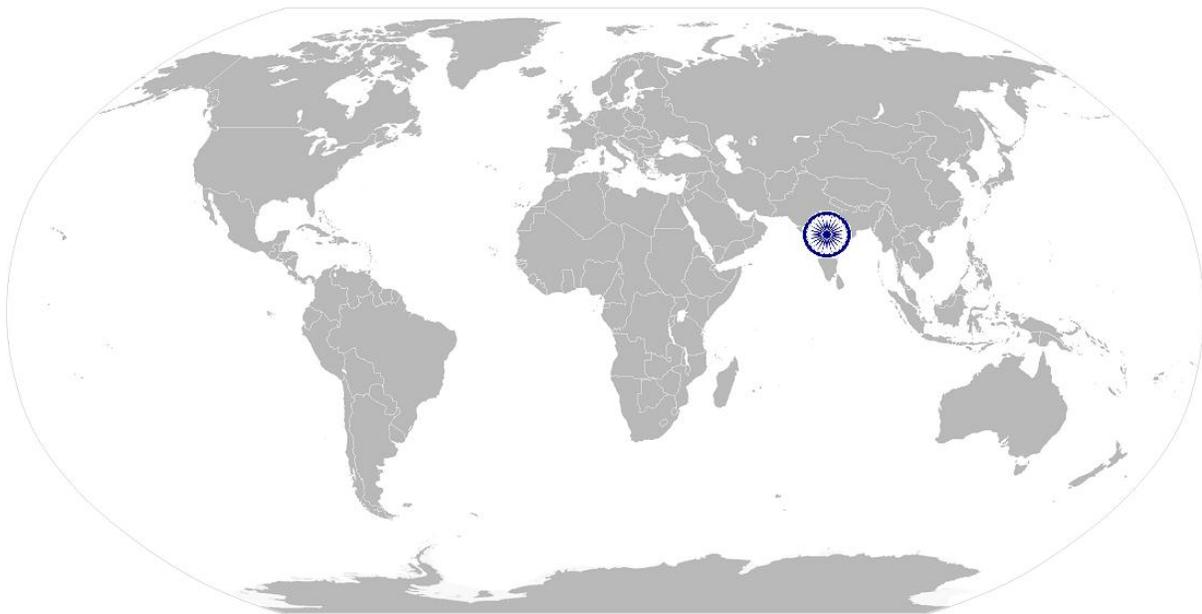
	SB2. Plan and organize service feedback files/documents
	<b>Customer Centricity</b>
	The user/individual on the job needs to know and understand how to:
	SB3. Manage relationships with customers who may be stressed, frustrated, confused, or angry
	SB4. Build customer relationships and use customer centric approach
	<b>Problem Solving</b>
	The user/individual on the job needs to know and understand how to:
	SB5. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s)
	SB6. Deal with clients lacking the technical background to solve the problem on their own
	SB7. Identify immediate or temporary solutions to resolve delays
<b>Analytical Thinking</b>	
The user/individual on the job needs to know and understand how to:	
SB8. Use the existing data to arrive at specific data points	
SB9. Use the existing data points for improving the defect resolution time	
SB10. Use the existing data points to generate required reports for business	
<b>Critical Thinking</b>	
The user/individual on the job needs to know and understand how to:	
SB11. Apply, analyze, and evaluate the information gathered from observation, experience, reasoning, or communication, as a guide to thought and action	



*RSC/N4906(CPC/N 2923) Entrepreneurship in Plastics Recycling*

## NOS Version Control

<b>NOS Code</b>	RSC/N4906(CPC/N 2923)		
<b>Credits (NSQF)</b>	3.5	<b>Version number</b>	1.0
<b>Sector</b>	Rubber	<b>Drafted on</b>	18/05/2016
<b>Sub Sector</b>	Plastics Processing	<b>Last reviewed on</b>	26/12/2016
<b>Occupation</b>	Plastics Recycling	<b>Next review date</b>	31/12/2021



# National Occupational Standards



## Overview

This unit is about Basics of computer and data entry in MS OFFICE/office Open source suite Software.

## RSC/N4504 (CPC/N0219) Basics of computer and data entry in MS OFFICE/office Open source suite Software

<b>Unit Code</b>	<b>RSC/N4504 (CPC/N0219)</b>
<b>Unit Title (Task)</b>	<b>Basics of computer and data entry in MS OFFICE/office Open source suite Software</b>
<b>Description</b>	This OS unit is about the Data Entry Operation for Plastic Recycled like entering, updating and maintain Job work related data the computer systems having MS Office software
<b>Scope</b>	This unit / task covers the following <ul style="list-style-type: none"> <li>Enter, update and maintain data in MS Office system</li> </ul>
<b>Performance criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance criteria</b>
<b>Enter, update and maintain data</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Fill and process mandated forms for receiving, processing, or tracking data, enter data from source documents (such as trial report, process sheet etc.) in to Computer application having MS OFFICE software.</p> <p>PC2. Scan source documents in accordance with specific instructions.</p> <p>PC3. Verify data entered with source documents, checks for compliance and corrects all typographical errors and missing or repeated data.</p> <p>PC4. Maintain files of source documents other information related to data entered.</p> <p>PC5. Investigate and confirm data that is unclear before entering, generate reports of data entry, store completed work in designated locations and perform backup operations.</p> <p>PC6. Update database information to reflect most current source information</p> <p>PC7. Assist in the filing and storage of security and back up data files</p> <p>PC8. Respond to requests for information and access relevant files</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. The data management applications/tools used by the company</p> <p>KA2. Data entry protocol</p> <p>KA3. Data integrity and security policies of the company</p> <p>KA4. Approved methods for carrying document control and archiving</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Basics of computers and its terminology</p> <p>KB2. The work on different software needed for report writing including MS office suit or open source office</p>

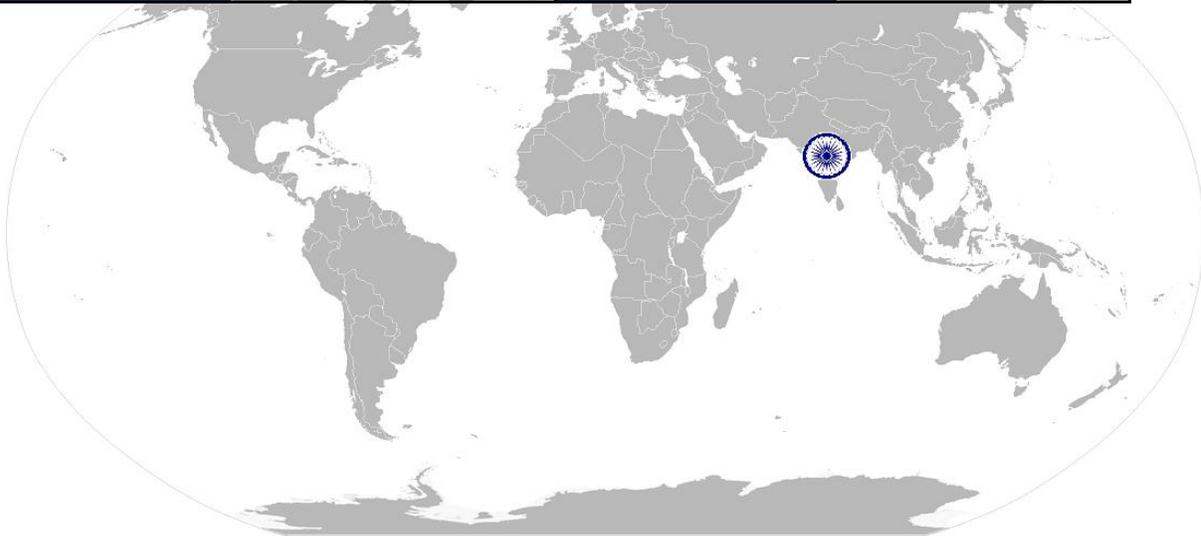
RSC/N4504 (CPC/N0219) Basics of computer and data entry in MS OFFICE/office Open source suite Software

Skills (S) [Optional]	
<b>A. Core Skills/ Generic Skills</b>	<b>Reading and Writing Skills</b>
	The user/ individual on the job needs to know and understand how to: SA1. Efficiently enter data into computer applications SA2. Prepare legible reports SA3. Read and understand manuals, SOPs, instructions, memos, reports, job cards etc.
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to: SA4. Communicate effectively with the team members and supervisors
<b>B. Professional Skills</b>	<b>Decision Making and Problem solving</b>
	Detect problems in day to day tasks: SB1 Apply basic logic to identify data errors SB2. Pay attention to details
	<b>Plan and Organize</b>
	The user/individual on the job needs to know and understand how to: SB3. Plan assigned tasks within timeline and as per priority order specified
	<b>Critical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB4. Identify process improvements

RSC/N4504 (CPC/N0219) Basics of computer and data entry in MS OFFICE/office Open source suite Software

## NOS Version Control

<b>NOS Code</b>	RSC/N4504 (CPC/N0219)		
<b>Credits (NSQF)</b>	3.35	<b>Version number</b>	1.0
<b>Sector</b>	Rubber	<b>Drafted on</b>	18/05/2016
<b>Sub Sector</b>	Plastics Processing	<b>Last reviewed on</b>	26/12/2016
<b>Occupation</b>	Plastics Recycling	<b>Next review date</b>	31/12/2021



*Qualifications Pack For Machine operator Plastics Recycling*

CRITERIA FOR ASSESSMENT OF TRAINEES					
<b>Job Role: Machine Operator – Plastics Recycling</b> <b>Qualification Pack Code:RSC/Q4902 (CPC/Q 2904)</b> <b>Sector Skill Council: Rubber Skill Development Council</b>					
<b>Guidelines for Assessment:</b> <ol style="list-style-type: none"> <li>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 laydown proportion of marks for Theory and Skills Practical for each PC.</li> <li>2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.</li> <li>3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)</li> <li>4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on this criteria.</li> <li>5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS.</li> <li>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.</li> </ol>					
Assessable outcome			Marks Allocation		
NOS	Performance criteria		Total	Theory	Practical
<b>RSC/N4901 (CPC/N2911)</b> <b>Understand basic concepts, job requirements &amp; basics knowledge related to process.</b>	PC1	interact with the operator in order to understand the production schedule	9.5	2.5	7
	PC2	help in planning the day's production activities based on the operator's instructions	9.5	2.5	7
	PC3	check availability of consumables and plastics materials for production in sufficient quantity as per production plan/operators instructions.	9	1.5	7.5
	PC4	follow the does and don'ts of the manufacturing process as defined in SOPs/ Work Instructions or defined by operator.	9	1.5	7.5
	PC5	Check availability of the personal protective equipments (PPE) like Gloves, Goggles etc.	9	1.5	7.5
	PC6	Follow the molding procedure and process to be adopted for completing the work order from the operator by referring the Work Instruction document/ SOP manual.	9	1.5	7.5
	PC7	Ensure that the required plastics waste material is procured from the store before starting the process	9	1.5	7.5

*Qualifications Pack For Machine operator Plastics Recycling*

	PC8	Handle the Die and pelletizer etc. required for executing the required operation and ensure that the same is available for operation.	9	1.5	7.5
	PC9	collect the Die from tool room, If Die is not available	9	1.5	7.5
	PC10	Install and bolt the Die and pelletizer etc. In place.	9	1.5	7.5
	PC11	Add the Plastics Waste material in the machine using material loader or by manual feeding.	9	1.5	7.5
	PC12	Ensure Die are clean if not clean with soft cotton cloth.	9	2.5	6.5
	PC13	Ensure cleaning of the other auxiliaries tools, (if any) before the initiation of the recycling and pelletizing process	9	2.5	6.5
	PC14	Ensure cleaning of the area around the apparatus for any oil, grease, combustible substances etc. so as to prevent any accident	9	2.5	6.5
	PC15	Ensure availability of the coolant and working of valves to circulate the coolant to cool and solidify plastic filaments for pelletizing.	9	2.5	6.5
	PC16	Identify the plastics waste material like dust, moisture etc. required for executing the activity	9	2.5	6.5
	PC17	Refer the queries to supervisor if they cannot be resolved by the operator	9	2.5	6.5
	PC18	Confirm self - understanding to the operator once the query is resolved so that all doubts & queries can be resolved before the actual process execution	9	2.5	6.5
	<b>Sub total</b>		<b>163</b>	<b>36</b>	<b>127</b>
<b>RSC/N4904 (CPC/N 2921) Perform the Plastics Recycling related operations, monitor process parameters and troubleshoot the process/product if any.</b>	PC1.	Check for operation of recycling apparatus like hopper, heaters ,washing equipment etc. as per the checklist provided	17	5	12
	PC2.	Fix the desired dies to the extrusion machine in order to achieve the desired operation as per the Work Instructions/ SOPs	17	5	12
	PC3.	Make modifications in the process parameters ( by selecting the right program from the machine control system) if required and ensure alignment with the prescribed standards	17	5	12
	PC4.	Perform preheating of sorted plastic wastes ( In case of Engineering plastics)	16	4	12

*Qualifications Pack For Machine operator Plastics Recycling*

	PC5. Ensure that the plastic waste are mixed with additives, fillers (if any) before being fed into the hopper	14	4	10
	PC6. Conduct a test process and produce a sample output as per requirement	13	4	9
	PC7. Ensure that the inspection and dimensions of the output pellets are inspected and measured as per the process given in the Work Instructions/ SOP	13	4	9
	PC8. In case the test product or pellets matches the dimensions and quality of the final output, start the production process	13	4	9
	PC9. Feed the required operation code in the apparatus for heaters to melt the plastic waste at the predefined temperature	12	3	9
	PC10. Enter moulding temperature, volume of plastic waste and weight settings in the machine as per data sheet	12	3	9
	PC11. Enter machine and process parameters such as pressure and time as per the data sheet	12	3	9
	PC12. Add master batch and fillers as per standard composition and mix it well	12	3	9
	PC13. Check-list procedure to ensure quality of final product	12	3	9
	<b>Sub total</b>	<b>180</b>	<b>50</b>	<b>130</b>
<b>RSC/N4905 (CPC/N 2922) To conduct quality check and inspection of contamination levels of the recycled resins with reference to approved product.</b>	PC1. Compare texture, colour, surface properties, hardness and strength etc with the given approved product.	30	10	20
	PC2. Note down the observations of the basic inspection process and Identify pieces which are OK and also not meeting the specified standards	15	5	10
	PC3. Discard the batch which are contaminated and reprocess it again.	13	3	10
	PC4. Maintain records of each category of work outputs as per the batch etc.	13	3	10
	PC5. Escalate all issues related to change in surface properties, Tensile strength etc. so that the manufacturing equipment can be reset to achieve the specified output.	13	3	10
	PC6. Provide first and last output from each batch to the lab for quality check on its composition, properties etc.	13	3	10
	PC7. Obtain clearance for the entire batch from the lab	13	3	10
	<b>Sub total</b>	<b>110</b>	<b>30</b>	<b>80</b>

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<b>RSC/N4101 (CPC/N0411) Maintain basic health and safety practices at the workplace, 5S</b>	PC1. Wear protective clothing/equipment for specific tasks and work conditions	2.5	0.5	2
	PC2. Carry out safe working practices while dealing with hazards to ensure the safety of self and others.	2.5	0.5	2
	PC3. Keep good housekeeping practices at all times	2.5	0.5	2
	PC4. Use the various appropriate fire extinguishers on different types of fires correctly	2.5	0.5	2
	PC5. Demonstrate rescue techniques applied during fire hazard, demonstrate good housekeeping in order to prevent fire hazards, demonstrate the correct use of a fire extinguisher.	2.5	0.5	2
	PC6. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise, and Identify areas in the plant which are potentially hazardous/unhygienic in nature. Conduct regular checks with support of the maintenance team on machine health to identify potential hazards due to wear and tear of machine.	2.5	0.5	2
	PC7. Inform the concerned authorities on the potential risks identified in the processes, workplace area/ layout, materials used etc, Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations.	2.5	0.5	2
	PC8. Create awareness amongst other by sharing information on the identified risks.	2.5	0.5	2
	PC9. Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and un- necessary items are not cluttering the workbenches or work surfaces.	2.5	0.5	2
	PC10. Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions	2.5	0.5	2
	PC11. Follow the technique of waste disposal and waste storage in the proper bins as per SOP	1.5	0.5	1

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	PC12. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places	1.5	0.5	1
	PC13. Sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ work instructions	1.5	0.5	1
	PC14. Ensure that areas of material storage areas are not overflowing PC15. Properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required	1.5	0.5	1
	PC16. Return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area	1.5	0.5	1
	PC17. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards.	1.5	0.5	1
	PC18. Follow the proper labelling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists	1.5	0.5	1
	PC19. Check that the items in the respective areas have been identified as broken or damaged	1.5	0.5	1
	PC20. Follow the given instructions and check for levelling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same To avoid spillage, leakage, fire etc.	1.5	0.5	1
	PC21. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions.	1.5	0.5	1
	<b>Sub total</b>	<b>40</b>	<b>10</b>	<b>30</b>
<b>RSC/N4906 (CPC/N 2923) Entrepreneurship in Plastics Recycling</b>	PC1. Plan and Budgeting with reference to various Plastics waste for recycling	7.5	0.5	7
	PC2. Keep books of accounts and various transactions.	8	1	7
	PC3. Arrange for financial assistance from various quarters in the light of various schemes available in setup for Plastic Recycling.	8	1	7
	PC4. Ascertain the prices of various inputs and products from the market.	8	1	7
	PC5. Assess the influence of various quality parameters of products/pellets on the product pricing.	8	1	7

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	PC6. Establish cordial relations with various clients for the benefit of industry.	8	1	7
	PC7. Assess the needs and requirement of the clients and assess one's own unique selling proposition.	8	1	7
	PC8. Extract critical market information that is otherwise not in the public domain.	8	1	7
	PC9. Choose appropriate buyer in a given situation of market parameters	8	1	7
	PC10. Identify best ways of attracting market price for one's produce	8	1	7
	PC11. Ensure good quality before and during the sale activity to ensure good returns.	5.5	0.5	5
	<b>Sub total</b>	<b>85</b>	<b>10</b>	<b>75</b>
<b>RSC/N4504 (CPC/N0219) Basics of computer and data entry in MS OFFICE/office Open source suite Software</b>	PC1. Fill and process mandated forms for receiving, processing, or tracking data enter data from source documents (such as trial report, process sheet etc.) into Computer application having MS OFFICE software.	3	2	1
	PC2. Scan source documents in accordance with specific instructions.	3	2	1
	PC3. Verify data entered with source documents, checks for compliance and corrects all typographical errors and missing or repeated data.	3	2	1
	PC4. Maintain files of source documents or other information related to data entered.	3	2	1
	PC5. Investigate and confirm data that is unclear before entering, generate reports of data entry, store completed work in designated locations and perform backup operations.	3	2	1
	PC6. update database information to reflect most current source information	2	1	1
	PC7. assist in the filing and storage of security and back up data files	3	2	1
	PC8. respond to requests for information and access relevant files	2	1	1
	<b>Sub total</b>	<b>22</b>	<b>14</b>	<b>8</b>
	<b>Total</b>	<b>600</b>	<b>150</b>	<b>450</b>