

QUALIFICATION FILE

Plastic Recycling Operator

Short Term Training (STT)

Future Skills

NCrF/NSQF Level: 3

Submitted By:

Skill Council for Green Jobs

Chief Executive Officer

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Section 1: Basic Details

1.	Qualification Name	Plastic Recycling Operator	
2.	Sector/s	Waste Management	
3.	Type of Qualification: <input checked="" type="checkbox"/> New	NQR Code & version of existing/previous qualification:	Qualification Name of existing/previous version:
4.	a. OEM Name b. Qualification Name (Wherever applicable)	Plastic Recycling Operator	
5.	National Qualification Register (NQR) Code &Version	QG-03-ES-00914-2023-V1-SCGJ	6. NCrF/NSQF Level: 3
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other	Certificate	
8.	Brief Description of the Qualification	Plastic Recycling Operator is responsible for overall manufacturing of recycled products from plastic waste. He/ she is responsible for ensuring that workers in the unit are working effectively and machines/equipment are working efficiently. He/she is also responsible for making sure that right input in terms of raw material, energy, fuel, pressure, temperature, etc is fed in the machines. He/ she also keeps a check on the health of the machines. He/ she also monitors the quality of the process of recycling and recycled products. Once the products are ready, he/she ensure suitable packing of the products and for maintaining necessary documentation for facility and for dispatch of end product	

<p>9. Eligibility Criteria for Entry for Student/Trainee/Learner/Employee</p>		<p>a. Entry Qualification & Relevant Experience:</p> <table border="1" data-bbox="837 368 1904 1098"> <thead> <tr> <th data-bbox="837 368 943 520">S. No.</th> <th data-bbox="943 368 1650 520">Academic/Skill Qualification (with Specialization - if applicable)</th> <th data-bbox="1650 368 1904 520">Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td data-bbox="837 520 943 655">1</td> <td data-bbox="943 520 1650 655">Grade 10 with no experience required Or Grade 8 with two year of (NTC/ NAC) after 8th with no experience required Or</td> <td data-bbox="1650 520 1904 655">NA</td> </tr> <tr> <td data-bbox="837 655 943 759">2</td> <td data-bbox="943 655 1650 759">Grade 8 pass and pursuing continuous schooling in regular school with vocational subject with no experience required relevant experience</td> <td data-bbox="1650 655 1904 759">NA</td> </tr> <tr> <td data-bbox="837 759 943 831">3</td> <td data-bbox="943 759 1650 831">8th grade pass</td> <td data-bbox="1650 759 1904 831">2 years relevant experience</td> </tr> <tr> <td data-bbox="837 831 943 903">4</td> <td data-bbox="943 831 1650 903">5th grade pass</td> <td data-bbox="1650 831 1904 903">5 years relevant experience</td> </tr> <tr> <td data-bbox="837 903 943 1007">5</td> <td data-bbox="943 903 1650 1007">Previous relevant Qualification of NSQF Level 2.5</td> <td data-bbox="1650 903 1904 1007">1.5 years of relevant experience</td> </tr> <tr> <td data-bbox="837 1007 943 1098">6</td> <td data-bbox="943 1007 1650 1098">Previous relevant Qualification of NSQF Level 2</td> <td data-bbox="1650 1007 1904 1098">3 years of relevant experience</td> </tr> </tbody> </table> <p>b. Age: 18 Years</p>	S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	Grade 10 with no experience required Or Grade 8 with two year of (NTC/ NAC) after 8th with no experience required Or	NA	2	Grade 8 pass and pursuing continuous schooling in regular school with vocational subject with no experience required relevant experience	NA	3	8th grade pass	2 years relevant experience	4	5th grade pass	5 years relevant experience	5	Previous relevant Qualification of NSQF Level 2.5	1.5 years of relevant experience	6	Previous relevant Qualification of NSQF Level 2	3 years of relevant experience	
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																						
1	Grade 10 with no experience required Or Grade 8 with two year of (NTC/ NAC) after 8th with no experience required Or	NA																						
2	Grade 8 pass and pursuing continuous schooling in regular school with vocational subject with no experience required relevant experience	NA																						
3	8th grade pass	2 years relevant experience																						
4	5th grade pass	5 years relevant experience																						
5	Previous relevant Qualification of NSQF Level 2.5	1.5 years of relevant experience																						
6	Previous relevant Qualification of NSQF Level 2	3 years of relevant experience																						
<p>10. Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))</p>	<p>12</p>		<p>11. Common Cost Norm Category:</p> <p>I</p>																					

12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																											
13.	Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended <table border="1" data-bbox="618 379 1738 600"> <thead> <tr> <th data-bbox="618 379 864 488">Training Delivery Modes</th> <th data-bbox="864 379 1005 488">Theory (Hours)</th> <th data-bbox="1005 379 1146 488">Practical (Hours)</th> <th data-bbox="1146 379 1296 488">OJT Mandatory (Hours)</th> <th data-bbox="1296 379 1496 488">OJT Recommended (Hours)</th> <th data-bbox="1496 379 1615 488">Employability (Hours)</th> <th data-bbox="1615 379 1738 488">Total (Hours)</th> </tr> </thead> <tbody> <tr> <td data-bbox="618 488 864 560">Classroom (offline)</td> <td data-bbox="864 488 1005 560">95</td> <td data-bbox="1005 488 1146 560">145</td> <td data-bbox="1146 488 1296 560">90</td> <td data-bbox="1296 488 1496 560"></td> <td data-bbox="1496 488 1615 560">30</td> <td data-bbox="1615 488 1738 560">360</td> </tr> <tr> <td data-bbox="618 560 864 600">Online</td> <td data-bbox="864 560 1005 600"></td> <td data-bbox="1005 560 1146 600"></td> <td data-bbox="1146 560 1296 600"></td> <td data-bbox="1296 560 1496 600"></td> <td data-bbox="1496 560 1615 600"></td> <td data-bbox="1615 560 1738 600"></td> </tr> </tbody> </table> <p data-bbox="618 600 1155 635">(Refer Blended Learning Annexure for details)</p>							Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Employability (Hours)	Total (Hours)	Classroom (offline)	95	145	90		30	360	Online						
Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Employability (Hours)	Total (Hours)																							
Classroom (offline)	95	145	90		30	360																							
Online																													
14.	Aligned to NCO/ISCO Code/s (if no code is available mention the same)	NCO-2015/8143.9900 Plastic Moulding Technician or Operator																											
15.	Progression path after attaining the qualification (Please show Professional and Academic progression)	Vertical Progression: Plastic Recycling Micro - Entrepreneur-Level 4																											
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Nil																											
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																											

18.	Is the Job Role Amenable to Persons with Disability	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes", specify applicable type of Disability: <input checked="" type="checkbox"/> Deaf <input checked="" type="checkbox"/> Hard of Hearing <input checked="" type="checkbox"/> Acid Attack Victims <input checked="" type="checkbox"/> Dwarfism	
19.	How Participation of Women will be Encouraged	The programme would be proposed to be incorporated in women ITIs and diploma colleges to train women candidates on the job role. TPs shall be encouraged to onboard at least a certain number of female candidates in each batch	
20.	Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
22.	Name and Contact Details of Submitting / Awarding Body SPOC (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	Name: Dr. Praveen Saxena Email: ceo@sscgi.in Contact No.: 9871119101 Website: https://sscgi.in/	
23.	Final Approval Date by NSQC: 31.08.2023	24. Validity Duration: 3 years	25. Next Review Date: 30.08.2026

Section 2: Module Summary

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT	Emp.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Introduce Plastic Recycling	SGJ/N4033: NOS Version No. 1.0	Core	3	1	20	10			30	30	20			50	15
2.	Describe tools and Equipment/machineries used for Plastic recycling	SGJ/N4034: NOS Version No. 1.0	Core	3	1	10	20			30	30	20			50	15
3.	Describe process line and products of plastic recycling	SGJ/N4035 NOS Version No. 1.0	Core	3	4	40	80			120	66	34			100	25
4.	Describe operation and maintenance of plastic recycling unit	SGJ/N4036: NOS Version No. 1.0	Core	3	1	10	20			30	30	20			50	15
5.	Maintain Personal Health & Safety in Plastic recycling facility	SGJ/N4052: NOS Version No. 1.0	Core	3	1	15	15			30	25	25			50	15
6.	Employability Skills	DGT/VSQ/N0101:	Core	2	1					30	20	30			50	15

		NOS Version No. 1.0														
	On the Job training				3					90						
	Duration (in Hours) / Total Marks			3	12	95	145	90	30	360	201	149			350	100

(In

exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

Th.-Theory Pr.-Practical OJT-On the Job Man.-Mandatory Training Rec.-Recommended Proj.-Project

Assessment - Minimum Qualifying Percentage

Minimum Pass Percentage – Aggregate at qualification level: 70% (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	5 th pass with 4 years of relevant experience Or Certified under relevant Craft Instructor Training Scheme (CITS) Course
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	5 th pass with 5 years of relevant experience Or Certified under relevant Craft Instructor Training Scheme (CITS) Course
3.	Tools and Equipment Required for Training	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If "Yes", details to be provided in Annexure)

4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	Not Applicable
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Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	5 th pass with 5 years of relevant experience Or Certified under relevant Craft Instructor Training Scheme (CITS) Course
2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	5 th pass with 6 years of relevant experience Or Certified under relevant Craft Instructor Training Scheme (CITS) Course
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	5 th pass with 6 years of relevant experience Or Certified under relevant Craft Instructor Training Scheme (CITS) Course
4.	Assessment Mode (Specify the assessment mode)	Online and offline both
5.	Tools and Equipment Required for Assessment	<input checked="" type="checkbox"/> Same as for training <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): No published skills gap study is available across the plastic waste management value chain as this is relatively a new segment however, a detailed gap analysis study was conducted by Indian Pollution Control Association (IPCA) in collaboration with SCGJ in 2022 where the gap in market for this qualification was identified.
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2.	<p>Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes, the following key documents are available in the public domain that establish the market requirement of plastic recycling industry and consequently plastic recycling operators.</p> <p>a. Provision of Extended Producers Responsibility in various Rules of Waste Management of India. The mandate of EPR can be fulfilled through recycling of plastic waste https://cpcb.nic.in/uploads/plasticwaste/2-amendment-pwmrules-2022.pdf</p> <p>b. Plastic Waste Management: Issues, Solutions and Challenges http://swachhbharaturban.gov.in/writereaddata/SBM%20Plastic%20Waste%20Book.pdf</p> <p>c. Circular Economy in Municipal Solid and Liquid Waste https://mohua.gov.in/pdf/627b8318adf18Circular-Economy-in-waste-management-FINAL.pdf</p> <p>d. Sustainable Urban Plastic Waste Management https://www.niti.gov.in/sites/default/files/2021-10/Final_Handbook_PWM_10112021.pdf</p>
3.	<p>Government /Industry initiatives/ requirement (Yes/No): Yes</p> <p>The rate of generation of plastic waste is increasing at an unprecedented rate. Managing the quantum of waste would require more and more recycling units that can recycle different grades of plastic. Skill Council for Green Jobs has done Occupational Mapping and Skill Gap Analysis in the waste management sub-sectors. It was found that currently the role of recycling technician is undertaken by people who have experience of working with machines on factories or production units, but not of specific sector. It should be stressed that plastic waste recycling is a sector in itself and trained manpower is required in the same. The presence of professionally trained recycling operators will improve efficiency, productivity and reduce occupational hazards prevalent in the recycling facilities.</p> <p>The Government of India has also notified Plastic Waste Management Rules which provides specific guidelines for recyclers and operation of recycling facility. The government has also mandated use of recycled plastic material in various applications such as road construction cement kilns, etc. Similarly, the introduction of Extended Producers Responsibility for plastic waste management has also given a push to plastic recycling. With the increase in the number of recycling facilities, the need for professional operators of recycling facilities will also increase.</p>
4.	<p>Number of Industry validation provided: Validations are being sought from up to 10 leading companies including plastic recycling industries</p>
5.	<p>Estimated nos. of persons to be trained and employed: It is estimated that 60% of the plastic waste is currently recycled in India. With the increase in amount of waste generation and improvement in technology for recycling plastic, there will be requirement of efficient recycling units. Recycling units will work effectively and efficiently only when their technicians have professional knowledge and skills to handle the machinery and supervise the recycling process. It is estimated that proper management of plastic waste can create 14 lakh jobs and could potentially represent a 2 billion economy (Circular Economy Symposium, FICCI, 2018).</p>
6.	<p>Evidence of Concurrence/Consultation with Line Ministry/State Departments:</p> <p>Concurrence has been requested from the Ministry of Environment, Forest and Climate Change</p>

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>	Annexure: Evidence of Level
2.	Annexure: List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Annexure: Tools and Equipment
3.	Annexure: Detailed Assessment Criteria <i>(Mandatory)</i>	Annexure: Assessment Strategy
4.	Annexure: Assessment Strategy <i>(Mandatory)</i>	Annexure: Assessment Strategy
5.	Annexure: Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	Annexure: Attached
6.	Annexure: Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	NA
7.	Annexure: Acronym and Glossary <i>(Optional)</i>	Annexure: Attached

8.	Supporting Document: Model Curriculum (<i>Mandatory – Public view</i>)	Attached
9.	Supporting Document: Career Progression (<i>Mandatory - Public view</i>)	NA
10.	Supporting Document: Occupational Map (<i>Mandatory</i>)	Annexure: Attached
11.	Supporting Document: Assessment SOP (<i>Mandatory</i>)	Annexure: Assessment Strategy

Annexure: Evidence of Level

Title/Name of qualification/component: Plastic Recycling Operator		Level: 3	
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Professional Theoretical Knowledge	<p>He/She will be able to have the knowledge of:</p> <ul style="list-style-type: none"> Physical and chemical characteristics of different grades of plastic Technology that is used for recycling of plastic waste at the unit Machinery used at the units including an understanding of its components Dos and don'ts while assembling components of machines The specifications that have to be following in the recycling process The process and duration of recycling Machine components which need replacements due to usage Development of recycled product Quality check mechanisms Packing of the end product for sale 	<p>The Plastic Recycling Operator is expected to exhibit an understanding of factual knowledge of waste, its stakeholders, technologies machine/ equipment and compliances S/he should also have the ability to speak read and write in the local vernacular language so as to communicate effectively with workers.</p>	3

	<ul style="list-style-type: none"> • Maintaining necessary documentation for facility and for dispatch of end product • Occupational health and safety risks • First aid • Potential risks due to own actions and methods to minimize these risks 		
Professional and Technical Skills/ Expertise	<p>He/she will be able to demonstrate the following technical skills:</p> <ul style="list-style-type: none"> • follow organization rule-based decision-making process • complete tasks efficiently and accurately within stipulated time • working constructively and collaboratively with others • coordinate with workers and other team members • Arrange support wherever required for repairing of machines and other work of the recycling unit • Follow organization code of conduct • Report potential sources of danger and emergency • Follow prescribed procedure in the event of an accident • Wear appropriate safety gear to avoid an accident 	The Plastic Recycling Operator is expected to recall and demonstrate technical capabilities that require well developed skills to handle raw material, work with machines and equipment, ability to analyse the health of the machine and take actions, help in the preparation of final recycled products. He/she will be expected to understand what constitutes quality in the occupation and will distinguish between good and bad quality. At this level, they will be expected to carry out their work safely and securely and take full account of the health and safety of team/ workers.	3
Employment Readiness & Technicianship Skills & Mind-set	<p>The Plastic Recycling Operator will be able to perform the following processes:</p> <ul style="list-style-type: none"> • Identify different grades of plastic waste • Monitor the use of machines/equipment 	A professionally trained individual who will be responsible for performing a range of functions in familiar, predictable and routine situations with the knowledge of waste management. Plastic Recycling	3

	<ul style="list-style-type: none"> • Supervise the production of recycled products • Guide and instruct the workers on different tasks in the process of recycling including material sorting, cleaning, grinding/ shredding, use of machines, specifications of final product, packing, etc. • Check machines, tools and equipment and ensure their smooth functioning at the unit • Maintaining documents and logs • Maintain environment, health and safety of the facility and workers • Work effectively with others 	operator will be responsible for carrying out a range of jobs, some of which will require them to make choices about the approaches they adopt including for assessing raw material, training workers, looking after machines, recycling process, production process, quality checks. Packing, etc. They will be expected to learn and improve their practice on the job.	
Broad Learning Outcomes	<p>At the end of the program, the learner will be able to:</p> <ul style="list-style-type: none"> • Know the raw material specifications of the unit, have a thorough understanding of machinery and other tools used in the unit • List down resource requirement • Operate the machinery • Check the health of machinery and equipment • Manage staff and workers of the unit • Network with other technicians • Understand the compliance requirement • Understand the operational procedures of the machines • Check the quality of the end product 	Plastic Recycling operator is responsible for manufacturing of recycled products from plastic waste. He/ she is responsible for ensuring that workers in the unit are working effectively and machines/equipment are working efficiently. He/she is also responsible for making sure that right input in terms of raw material, energy, fuel, pressure, temperature, etc is fed in the machines. He/ she also keeps a check on the health of the machines. He/ she also monitors the quality of the process of recycling and recycled products. Once the products are ready, he/she ensure suitable packing of the products and for maintaining necessary documentation for facility and for dispatch of end product.	3

	<ul style="list-style-type: none"> • Package and deliver the end product • Maintain Environment, Health and Safety within the facility • Have effective communication and soft skills 		
Responsibility	<p>The Individual will be able to perform the following task:</p> <ul style="list-style-type: none"> • Responsible for coordinating with different teams • Smooth functioning of machines • Ensuring efficient working of staff/ workers • Supervising the workers • Work directly with maintenance personnel, other line personnel and management to solve problems and ensure maximum production efficiencies • Document appropriate operation in logs • Troubleshoot and correct machinery or quality problems • maintain environment, health and safety of workplace and workers • work in integration with other co-workers 	<p>Plastic Recycling operator is responsible for his/ her own work and learning and also responsible to ensure the proper execution of certain tasks.</p>	3



Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size:

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Checklist for plant inspection, designed model activities, model product report of factory, log books, quality assessment format, Manuals of machinery	Standard Make	
2	Plastic of various grades		
3	Site Visit for Practical Learning; exposure to balers, forklift, conveyor belts, composting bins, washer, grinder, chiller, boiler, hot and cold press, cutter etc		
4	Personnel Protective Equipment, First aid kit, Material Safety Data		

Classroom Aids

The aids required to conduct sessions in the classroom are: Laptop, white board, Duster, marker, projector, charts, Training kit (Trainer guide, Presentations), Participant Handbook and Related Standard Operating Procedures.

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1.	Ahuja Plastic Industry	Paramjeet Singh	Managing Director	Hadbast No.243, Tehsil Payal, Baba Shaheedan Road, Rajgarh, Ludhiana - 141421	8284000901	ahujaplastic@gmail.com	NA
2.	Conserve	Anita Ahuja	President	A 116, Madhuban Vikas Marg, Delhi - 110092	9999501200	anita@conserveindia.org	NA
3.	Harmony Overseas	Pankaj	Manager	G-255, G Block, Sector 63, Noida, Uttar Pradesh - 201301	9716162008	accounts@harmonyoverseas.com	NA
4.	Lifaffa	Shailendra Jha	Manager	1 st Floor, Building 7, Khullar Farms Road, New Delhi - 110030	9582570455	Shailendrajha1985@gmail.com	NA
5.	Plastiskul India	Kanika Ahuja	President	1 st Floor, Building 7, Khullar Farms Road, New Delhi - 110030	9999502002	Kanikaahuja27@gmail.com	NA
6.	Singla Plastic Industries	Hunny Singla	Partner	D-313, Focal Point, Patiala, 147004	9888394505	Ashksingla1959@gmail.com	NA
7.	SM International	Manoj Singh	Manager	Kh. 147, Panch Vihar Near Chipyana Fatak lal	955582280	Info9sminternational@gmail.com	NA

				Kuan, Ghaziabad, U.P - 201009			
8.	Indian Pollution Control Association	Ashish Jain	Director	3-7, DDA Shopping Complex, Hargovind Enclave, Vihar Marg Ext., Delhi - 110092	9312432405	info@ipcaworld.co.in	NA
9.							
10.							

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline : Online Ratio
1	<input checked="" type="checkbox"/> Theory/ Lectures - Imparting theoretical and conceptual knowledge		60:40
2	<input checked="" type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners		
3	<input checked="" type="checkbox"/> Showing Practical Demonstrations to the learners		
4	<input checked="" type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training		

5	<input checked="" type="checkbox"/> Tutorials/ Assignments/ Drill/ Practice		
6	<input checked="" type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7	<input checked="" type="checkbox"/> On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training		

Annexure: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes			
	Theory	Practical	Project Marks	Viva Marks
Introduce Plastic Recycling	30	20		
Describe tools and Equipment/machineries used for Plastic recycling	30	20		
Describe process line and products of plastic recycling	66	34		
Describe operation and maintenance of plastic recycling unit	30	20		
Maintain Personal Health & Safety in Plastic recycling facility	25	25		
Employability Skills	20	30		
Grand Total	201	149		

Annexure: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SDSM/SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records

2. Testing Environment:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME verified by the other subject Matter Experts
- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
- Assessor must be ToA certified & trainer must be ToT Certified
- Assessment agency must follow the assessment guidelines to conduct the assessment

4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location

- Center photographs with signboards and scheme specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:

- Surprise visit to the assessment location
- Random audit of the batch
- Random audit of any candidate

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
- Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

On the Job:

OJT Monitoring Report

- As in Green Jobs Sector, reproducing the evidence for assessment is not feasible due to constraints like cost, confidentiality and controlled environment, every
- Apprentice is required to record the evidences performed during the OJT and the same gets authorized by his/her supervisor.
- The evidence recording is done in a structured monitoring report, termed as OJT Monitoring report.
- During the OJT, every trainee is required to fill the OJT monitoring report which is required to be signed by his/her supervisor.
- Towards the end of OJT period these reports are submitted with the HR department of company
- These duly submitted reports are then verified by an Industry nominated assessor for verification of evidence.

Theory, Practical & Viva:

- Scope – Is used to test the knowledge and understanding and skills acquired during the OJT as well as to conform the OJT monitoring report.
- Some personality traits and generic skills (such as – promptness, sharpness, communication skills, depth of knowledge, comprehension, presentation, patience
- etc) can also be tested, which is also required for the QP.
- Tools – The assessment's questions should be aligned with the Qualification Pack, covering the PCs. There will be summative assessment at

the end of the OJT.

- Method – Direct questions open and close ended questions, situation-based questions, analytical questions, and decision-making based questions for Viva,
- MCQ for the theory and performing QP related operations for practical. Different questions in theory, practical and viva are included to test relevant PCs from
- the QP
- Analysis – Assessor draws a spectrum of ready answers to be expected from trainee for Viva. This reduces effect of subjectivity of the assessor. Comparative
- Quality of trainees within a batch or different institutes can be gauged. The skill is gauged by observing the practical work.

Execution of OJT Assessment:

- HR department hands over the individual OJT monitoring report with Industry nominated assessor and schedules an assessment meeting for each trainee.
- Industry nominated assessor assesses each trainee based on OJT monitoring report, viva on each PC and also takes into account attendance of each trainee towards the end of the OJT period.
- The OJT marks are compiled for each NOS by the Industry nominated assessor and submitted with HR department of company.
- The OJT assessment results are then sent to SCGJ by HR department of company in a sealed envelope for compiling the assessment results in case of offline assessment.

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework

OJT	On the Job Training
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Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf

Annexure: Annexure: Career Progression and OM

