

Revision made by NSDA\_25 May 2015

## **QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY**

### **Name and address of submitting body:**

HCSSC,  
Handicrafts and Carpet Sector Skill Council,  
EPCH House,  
Pocket 6 & 7, Sector C,  
Vasant Kunj,  
New Delhi-110070

### **Name and contact details of individual dealing with the submission**

**Name:** Rajesh Rawat

**Position in the organisation:** Chief Executive Officer

**Address if different from above**

**Tel number(s):** 011-26139834

**E-mail address:** ceo@hcssc.in

### **List of documents submitted in support of the Qualifications File**

1. Qualification Pack
2. RFP for development of Occupational Standards
3. Selection process of the Consultants to develop Occupational Standards
4. Minutes of the meeting of GC meetings
  - i. Composition of the Technical Committee
  - ii. Approval of Occupational Standards by Technical Committee and Governing Council
5. NSDC Human Resource & Skills Requirement in Handicrafts & Carpet Sector
6. Occupational Map & Progression matrix
7. List of QP/NOS validating companies.

## QUALIFICATION FILE SUMMARY

<b>Qualification Title</b>	Lab assistant (Ceramics) HCS/Q1002		
<b>Body/bodies which will assess candidates</b>	Handicrafts and Carpet Sector Skill Council		
<b>Body/bodies which will award the certificate for the qualification.</b>	Handicrafts and Carpet Sector Skill Council		
<b>Body which will accredit providers to offer the qualification.</b>	Handicrafts and Carpet Sector Skill Council		
<b>Occupation(s) to which the qualification gives access</b>	Quality Check		
<b>Proposed level of the qualification in the NSQF.</b>	4		
<b>Anticipated volume of training/learning required to complete the qualification.</b>	220 hours		
<b>Entry requirements / recommendations.</b>	Graduate in science		
<b>Progression from the qualification.</b>	Vertical: Testing In-charge - Level 5 Horizontal: Testing technician or incoming material QC technician		
<b>Planned arrangements for RPL.</b>	RPL arrangements and policies are under development. The guidelines should be ready in 2-3 months.		
<b>International Comparability</b>	Not yet established		
<b>Formal structure of the qualification</b>			
<b>Title of unit or other component</b> (include any identification code used)	<b>Mandatory/ Optional</b>	<b>Estimated size (learning hours)</b>	<b>Level</b>
HCS/N1003 Receive and understand the associated procedures	Mandatory	60	4
HCS/N1004 Perform the tests	Mandatory	60	4
HCS/N9901 Coordinate with colleagues and work as a team	Mandatory	20	Common across 1-5 levels
HCS/N9902 Maintain safe work environment	Mandatory	40	Common across 1-5 levels
HCS/N9903 Maintain personal health	Mandatory	40	Common across 1-5 levels

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack.

Give details of the document here:

- Qualification Pack is attached as Annexure 1

## **SECTION 1**

### **ASSESSMENT**

**Name of assessment body:**

If there will be more than one assessment body for this qualification, give details.

Assessment bodies are in the process of affiliation.

**Will the assessment body be responsible for RPL assessment?**

Yes

Give details of how RPL assessment for the qualification will be carried out and quality assured.

RPL will be based on the same approved Qualification Pack and Assessment Criteria mentioned in the Qualification Pack.

The process of RPL assessment is under development.

**Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:**

The assessment strategy is under development.

Please attach any documents giving further information about assessment and/or RPL.

Give details of the document(s) here:

### **ASSESSMENT EVIDENCE**

**Complete the following grid for each grouping of NOS, assessment unit or other component as per the assessment criteria. Insert the required number of rows.**

**CRITERIA FOR ASSESSMENT OF TRAINEES**

**Job Role : Lab assistant (Ceramics)**

**Qualification Pack : HCS/Q1002**

**Sector Skill Council : Handicrafts & Carpet Sector Skill Council**

**Guidelines for Assessment:**

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

<b>Assessable Outcomes</b>	<b>Assessment Criteria</b>	<b>Total Marks</b>	<b>Out Of</b>	<b>Theory</b>	<b>Skills Practical</b>
<b>HCS/N1003: Receive and understand the associated procedures</b>	PC1. communicate with the technical director	<b>100</b>	3	1	2
	PC2. receive the defects, tests, acceptance criteria and sampling plan list from technical director and understand the same		3	1	2
	PC3. discuss the above parameters with the lab team		3	1	2
	PC4. clarify any doubts on the above parameters with the technical director		3	1	2
	PC5. highlight any discrepancies if observed		3	1	2
	PC6. highlight missing/required parameters		3	1	2
	PC7. understand material-wise list of defects		4	1	3
	PC8. map defects like difference in residue, colour changes, variation in melting point, litre weight, flow per second for various materials		4	1	3
	PC9. understand when typically these defects will be displayed		4	1	3
	PC10. analyze the causes of defects		4	1	3
	PC11. map the effects of the defects		4	1	3

	PC12. assess the impact of the defects in the production		4	1	3
	PC13. understand material-wise list of tests		4	1	3
	PC14. map tests like %residue colour, %residue mesh, setting time find, initial residue, etc for various materials		4	1	3
	PC15. understand when the tests have to be performed		4	1	3
	PC16. understand what the tests are supposed to reveal		4	1	3
	PC17. analyze the test results		3	1	2
	PC18. map the impact of the test on the overall material quality		3	1	2
	PC19. understand material-wise list of acceptance criteria		4	1	3
	PC20. comprehend the rationale behind the determination of the acceptance criteria		4	1	3
	PC21. make note of the typical sampling quantities		4	1	3
	PC22. understand how to handle the samples		4	1	3
	PC23. deduce how to access the samples		4	1	3
	PC24. comprehend how to dispose the samples		3	1	2
	PC25. understand the manner in which test data has to be recorded		3	1	2
	PC26. analyze the implications of test reporting		4	1	3
	PC27. help in creation of the appropriate templates		3	1	2
	PC28. fill the template with correct data and interpretation		3	1	2
		<b>Total</b>	<b>100</b>	<b>28</b>	<b>72</b>
<b>HCS / N 1004: Perform the tests</b>	PC1. understand the reason for the sampling	<b>100</b>	3	1	2
	PC2. recall the sample amount for the respective materials		3	1	2
	PC3. apply the appropriate sampling methodology		3	1	2
	PC4. take the appropriate amount of sample after weighing		3	1	2
	PC5. handle the samples carefully		3	1	2
	PC6. replace the materials in location after taking the samples		3	1	2

	PC7. correlate the testing methodology according to the material		3	1	2
	PC8. correlate the sampling plan according to the material and test		3	1	2
	PC9. place the samples appropriately on the equipment		3	1	2
	PC10. perform the appropriate tests on the samples		3	1	2
	PC11. use the various testing equipment appropriately		3	1	2
	PC12. observe the test process		3	1	2
	PC13. observe the defects		3	1	2
	PC14. understand why the defects arise		3	1	2
	PC15. know what defects can be observed in the test process		3	1	2
	PC16. make notes during the process		3	1	2
	PC17. retire the equipment after the test		3	1	2
	PC18. remove the samples after test		3	1	2
	PC19. clean the equipment after the test		3	1	2
	PC20. Record details of the batch		3	1	2
	PC21. record the details of the samples		3	1	2
	PC22. record the details on the product lines		3	1	2
	PC23. compute the percentages required		3	1	2
	PC24. compute details for achieving the acceptance criteria		3	1	2
	PC25. compute any other details required		3	1	2
	PC26. note the same appropriately		3	1	2
	PC27. interpret the results when required		3	1	2
	PC28. ensure all results recorded are in line with the template		3	1	2
	PC29. alert about any recurrent issue		3	1	2
	PC30. liaison with various internal teams on various testing issues		3	1	2
	PC31. avoid overall production losses due to quality		3	1	2
	PC32. communicate where rework is required		2	1	1
	PC33. perform testing on the targeted number per day		3	1	2
	PC34. complete all activities as per internal standards		2	1	1
		<b>Total</b>	<b>100</b>	<b>34</b>	<b>66</b>
<b>HCS/N9901: Coordinate</b>	PC1. receive job order and instructions from reporting supervisor	<b>100</b>	4	3	1

<b>with colleagues and work as a team</b>	PC2. understand the work output requirements, targets, performance indicators and incentives	5	4	1
	PC3. deliver quality work on time and report any anticipated reasons for delays	5	1	4
	PC4. report on any grievances, production defects and any potential hazards	4	2	2
	PC5. communicate on process flow improvements	4	2	2
	PC6. communicate maintenance and repair schedule proactively to the supervisor	4	1	3
	PC7. receive feedback on work standards	4	2	2
	PC8. interact and clarify doubts on design, usage of materials & tools, quality & standards compliance, etc	5	2	3
	PC9. report in time for shortage or need of raw materials	4	1	3
	PC10. handover completed work to supervisor	4	2	2
	PC11. communicate to the colleagues from within and other departments, clearly and effectively on all aspects to carry out the work among the team	5	2	3
	PC12. maintain the etiquettes, use polite language, demonstrate responsible and disciplined behaviour to the colleagues	5	2	3
	PC13. interact with colleagues from different functions and understand the nature of their work	4	2	2
	PC14. put team over individual goals and multi task or share work where necessary supporting the colleagues	4	2	2
	PC15. resolve conflicts and ensure smooth workflow	4	1	3
	PC16. interact and understand the production requirement for the day from the previous and successive processing department and work accordingly	4	1	3
	PC17. communicate and discuss work flow related difficulties in order to find solutions with mutual agreement	4	1	3
	PC18. receive feedback from Quality Control and rework in order to complete work on time	5	1	4

	PC19. share information with colleagues to enable efficient delivery of work		6	3	3
	PC20. highlight any errors of colleagues, help to rectify and ensure quality output		4	2	2
	PC21. work with cooperation, coordination, communication and collaboration, with shared goals and supporting each other's performance		4	1	3
	PC22. document all the details accurately relating to one's role as required		4	1	3
	PC23. report on the work completed and keep it in records		4	1	3
		<b>Total</b>	<b>100</b>	<b>40</b>	<b>60</b>
<b>HCS/N9902: Maintain safe work environment</b>	PC1. comply with safety procedures while on work to prevent accidents	<b>100</b>	8	2	6
	PC2. take adequate safety measures while handling materials, chemicals and tools		8	2	6
	PC3. wear appropriate personal protective gears such as gloves, protective goggles, masks etc. while working		8	2	6
	PC4. undertake basic safety checks before operation of all tools and electrical equipment		9	2	7
	PC5. wear appropriate and recommended clothing as per the work environment (eg: working in a furnace area )		9	2	7
	PC6. follow recommended material handling procedure to control material and personal damage		8	2	6
	PC7. perform all procedures as per company's work instructions for controlling operational risk		8	4	4
	PC8. perform the duties in a manner which minimizes environmental damage		6	2	4
	PC9. dispose of waste safely and correctly in a designated area as per company's SOP		8	2	6
	PC10. report any accidents, incidents or problems without delay to the supervisor and take necessary immediate action to reduce further danger		8	4	4
	PC11. ensure zero accident at workplace		10	2	8
	PC12. adhere to safety standards and ensure no material damage		10	2	8
		<b>Total</b>	<b>100</b>	<b>28</b>	<b>72</b>



<b>HCS/N9903: Maintain personal health</b>	PC1. always cover the mouth and nose with a dust mask while working and keep on changing when it gets blocked with dust	<b>100</b>	12	4	8
	PC2. follow work instructions strictly to reduce the amount of pollution at the work place e.g. wet the rock / craft material before working on it		10	2	8
	PC3. wear protective goggles over eyes and replace them when scratches on it obscure the vision		10	2	8
	PC4. wear gloves as per the materials used for making handicraft to avoid blisters; scratches and cuts		10	2	8
	PC5. undergo preventive health checkups at regular intervals		10	2	8
	PC6. take prompt treatment from the doctor in case of illness		11	3	8
	PC7. follow SOPs for dealing with blisters; scratches; accidental fires or any other type of emergencies at work		11	4	7
	PC8. ensure no productivity loss or absenteeism from work due to illness		13	3	10
	PC9. ensure no long term ill effect on the personal health		13	3	10
	<b>Total</b>	<b>100</b>	<b>25</b>	<b>75</b>	

## SECTION 2

### EVIDENCE OF NEED

#### **What evidence is there that the qualification is needed?**

While collecting data from the companies for the occupational map, we also took feedback from industry, which was collected with respect to roles for which qualification packs development, was to be prioritized. This was largely based on volume of people required, quantitative and qualitative shortfall which the Industry feels they face. Governing council of HCSSC gave final approval and endorsement for the same.

#### **What is the estimated uptake of this qualification and what is the basis of this estimate?**

Employed in the role: 439; Estimate uptake 380 based on requirements for existing and prospective workforce on the basis of Skills Gap analysis Reports and validation of skill gap study through feedback from industry for demand. An LMIS development initiative is being put in place to be more precise regarding the demand and supply

#### **What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?**

- NSDC list of Approved and Under-Development QPs was checked prior to commissioning the work

**What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?**

- Agencies have been appointed by the SSC to interact with training providers to gather feedback in implementation.
- Monitoring of results of assessments
- Employer feedback will be sought post-placement
- A formal review is scheduled in two year time i.e. 2017

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

- NSDC Human Resource & Skills Requirement in handicrafts & Carpet Sector

### SECTION 3

#### **SUMMARY OF DIRECT EVIDENCE OF LEVEL**

Justify the NSQF level allocated to the QP. Relate information about the job role and build upon the five descriptors for the level to justify.

Health and safety, Work effectively and a basic business management are common for all roles from NSQF levels 1-5 and cover the minimum in a workplace.

Level 4

<b>Lab assistant (Ceramics)</b>					<b>HCS/Q1002</b>
<b>Process required</b>	<b>Professional Knowledge</b>	<b>Professional Skills</b>	<b>Core Skills</b>	<b>Responsibility</b>	<b>Level</b>
The incumbent works in familiar and predictable routine of testing for defects and other parameters in ceramics manufacturing. The situation of clear choice (descriptor of level 4) is evident through the following examples	The incumbent has factual knowledge of field of knowledge or study which is in this case includes testing parameters and procedures and physical and chemical basis of it.  Examples:	Most of the work involves recall and demonstration of practical skill, is routine and repetitive and in a narrow range of application.  Examples: • recall the sample	The incumbent needs language to communicate written or oral, with required clarity, to interact with various departments, supervisors, personnel and delivery teams, confirm	The incumbent works with responsibility for own work and learning, which is evident from the incumbent's deliverables and also there is no responsibility	<b>4</b>

<ul style="list-style-type: none"> <li>take the appropriate amount of sample after weighing</li> <li>perform the appropriate tests on the samples</li> <li>deduce how to access the samples</li> </ul> <p>This is not of level 5 which requires clear choice of procedures, as here the procedure is standardised by the direction of the director</p> <p>Example:</p> <ul style="list-style-type: none"> <li>receive the defects, tests, acceptance criteria and sampling plan list from technical director and understand the same</li> </ul>	<ul style="list-style-type: none"> <li>different materials and associated tests</li> <li>typical acceptance criteria</li> <li>typical defects observed</li> <li>the chemistry knowledge behind the tests</li> <li>material properties</li> </ul> <p>This is not level 5 as there is a requirement of principles and general concepts at level 5 which is not required here. Also not level 3 as this level as outlined above requires factual knowledge of field of study and not mere basic facts, process and principle knowledge of trade of employment.</p>	<p>amount for the respective materials</p> <ul style="list-style-type: none"> <li>apply the appropriate sampling methodology</li> <li>take the appropriate amount of sample after weighing</li> <li>handle the samples carefully</li> <li>use the various testing equipment appropriately</li> <li>observe the test process</li> <li>observe the defects</li> </ul> <p>The incumbent also uses appropriate rule and tool and quality concepts to complete their work. This is evident through:</p> <ul style="list-style-type: none"> <li>use the various testing equipment appropriately</li> <li>retire the equipment after the test</li> <li>complete all activities as per internal standards</li> </ul>	<p>requirements and communicate order and delivery terms. Also interact with other departments and prepare a range of routine documentation.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>discuss the above parameters with the lab team</li> <li>clarify any doubts on the above parameters with the technical director</li> <li>liaison with various internal teams on various testing issues</li> <li>communicate where rework is required</li> </ul> <p>The incumbent also needs skill pertaining to basic arithmetic and algebraic principles, for calculating various quantities and parameters, etc.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>compute the</li> </ul>	<p>for the learning of others therefore this is not level 5.</p> <ul style="list-style-type: none"> <li>perform testing on the targeted number per day</li> <li>complete all activities as per internal standards</li> <li>analyze the test results</li> </ul>	
---	---	--	--	--	--

		<ul style="list-style-type: none"> <li>comprehend the rationale behind the determination of the acceptance criteria</li> </ul> <p>This is not level 5 as it is missing required cognitive skills and range of methods for problem solving.</p> <p>Not level 3 as there is independent work and not mere assisting, at the same time there are variables involved.</p>	<p>percentages required</p> <ul style="list-style-type: none"> <li>compute details for achieving the acceptance criteria</li> <li>compute any other details required</li> <li>take the appropriate amount of sample after weighing</li> </ul>		
4	4	4	4	4	

**OTHER EVIDENCE OF LEVEL** [This need only be filled in where evidence other than primary outcomes was used to allocate a level] **(Optional)**

Summary of other evidence (if used):

Nil

## **SECTION 4**

### **EVIDENCE OF RECOGNITION OR PROGRESSION**

**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?**

- Horizontal and vertical mobility options have been articulated in occupational map
- Vertical: Testing In-charge - Level 5; Horizontal: Testing technician or incoming material QC technician

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

- Occupational Map and progression matrix

### List of companies validated the QP

S. No	Name of the Organisation	Contact Person	Employee - Size
1	B.L.Ceramic Industries	Sami Ahmad Khan	Small
2	Blue Art Flower Vases works	SP Dadoo	Small
3	Dadoo Industries	Naman Dadoo	Small
4	Krishna Ceramics	Khalid Ahmad	Small
5	Chhabra & Sons	Mohd. Yusuf Khan	Small
6	Gopal Grinding Mills	Hari Dadoo	Small
7	Chhabra Industries	Mohd. Abdiul Raheem Khan	Small
8	Central glass & ceramic research institute	Dr. LK Sharma	Medium
9	Neerja International		Large
10	Minhas Pottery	Rajesh Kumar Tomar	Large
11	Chhatwal Ceramics	Vineet Sharma	Large
12	Silico & Chemico Porcelain Works	Darshan Chhatwal	Large

Further contact details and a copy of the validation are submitted both with NSDC and NSDA