

Revised Application Documentation: Revision made by NSDA\_22 May 2015

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

**Name and address of submitting body:**

**Gem & Jewellery Skill Council of India**

**Business Facilitation Centre, 3rd Floor  
Seepz Special Economic Zone.  
Andheri (E). Mumbai 400 096.**

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

**Name:** Mr. Binit Bhatt

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

**Address if different from above:** Same as Above

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

1. Career Map of Assayer and Hallmark Administrator - Annexure 1
2. QP G&J/Q0402– Annexure 2
3. Format for EOI for AA Accreditation from GJSCI - Annexure 3
4. Protocol for Accreditation of Assessment Agencies and Assessment Framework –  
Annexure 4
5. Skill gap report for Gem and Jewellery Sector\_2008-2022– Annexure 5

## QUALIFICATION FILE SECTION 1

### SUMMARY

Qualification Title	G&J/Q 0402- Assayer and Hallmark Administrator
Body/bodies which will assess candidates	<ul style="list-style-type: none"> <li>• Five Elements Business Solutions Pvt Ltd.</li> <li>• CoCubes Technologies Pvt Ltd</li> <li>• Cindrellinfotech Private Limited</li> <li>• Skill Training Assessment Management Partners, Ltd.</li> <li>• AssessPeople Services (India) Pvt. Ltd.</li> <li>• Manipal City and Guilds</li> <li>• Induslynk Training Services Pvt Ltd (Mettl)</li> <li>• Navriti Technologies Pvt Ltd</li> <li>• The Assessors Guild (TAG)</li> <li>• Aspiring Minds Assessment private Limited</li> <li>• Edu World Consultants Pvt Ltd</li> </ul>
Body/bodies which will award the certificate for the qualification:	Gem & Jewellery Skill Council of India
Body which will accredit providers to offer the qualification.	Gem & Jewellery Skill Council of India
Occupation(s) to which the qualification gives access	Assayer and Hallmark Administrator
Proposed level of the qualification in the NSQF.	<b>Level – 6</b>
Anticipated volume of training/learning required to complete the qualification.	120 hours
Entry requirements / recommendations.	Preferable Qualification shall be B.Sc. (Chemistry) with minimum 6 months of experience in Gold Refining and Metal Alloying.
Minimum age	14 Years
Progression from the qualification.	Melter & refiner
Planned arrangements for RPL.	<p>Implementation Mechanism</p> <p>Facilitation</p> <p>The GJSCI has empowered the Training Partners to play the role of facilitation agency. The roles and responsibilities of the facilitation agency will be as follows:</p> <ol style="list-style-type: none"> <li>1. Survey the market and contact the persons who have acquired the skills of a particular trade in informal/non-formal settings and motivate them for getting their skills/competencies assessed, certified and recognized by a National Level Organization.</li> <li>2. Alternatively, a person who has acquired skills/competencies in informal/non-formal settings and desires to get his/her skills assessed, certified and recognized by a National Level Organization approaches the Training Partner.</li> <li>3. Training Partners will explain and assist interested candidates to register and submit the application form along with the required documents.</li> </ol>

### RPL Implementation Process:

In order to create an awareness about the RPL assessments, GJSCI will put in marketing efforts in targeted regions of the country to invite applications from the persons who desire to get their skills assessed, recognized and certified in relevant trade.

The set of documents along with the application form should be sent to the GJSCI office in the form of scanned copy and hard copy by post or in person by the Training Partner

<b>Group A (Skill based evidence)</b>	i) Proof of work experience/skills/competencies acquired in informal/non-formal settings (Self undertaking)
	ii) Work experience certificate from the employer if any
	iii) Work experience certificate from the local Jeweller's Manufacturer's association
<b>Group B (Literacy based evidence)</b>	iv) Copy of the Educational Qualification certificate, if any
	iv) Self undertaking by the candidate indicating the basic literacy level
<b>The candidate should submit the evidence at least one each from Group A and Group B.</b>	

1. The applications along with the evidence submitted by the candidates will be screened and reviewed by the Training Partner & GJSCI.

2. The eligible candidates will be informed accordingly.

3. The candidates who could not be eligible for RPL assessment, will be informed about the deficiency in the application form and evidence submitted by them to the Training Partner and will be asked to apply again after taking necessary remedial measures.

4. Training Partner will inform the candidates about the assessment centre, date and time for assessment well in advance. Efforts will be made to ensure that the candidate is assessed in his/her work place only.

#### Eligibility criteria:

1. Any artisan above the age of 18 with a minimum work experience of 6 months can get assessed in the RPL programme.

2. To validate the work experience, we shall need a letter from the local jeweller's association or the employing company certifying his/her experience.

International comparability where known.

Not Done yet

Formal structure of the qualification

Title of unit or other component  
(include any identification code used)

**Mandatory/**

**Estimated size**

**Level**

**Optional**

**(learning hours)**

G&J/N0402 Assay and Administer Hallmark on the precious-metal product	Mandatory	<b>120</b>	<b>6</b>
G&J/N9910 Maintain IPR and respect copyright	Mandatory		<b>6</b>
G&J/N9912 Coordinate with co-workers	Mandatory		<b>6</b>
G&J/N9914 Maintain safe work environment	Mandatory		<b>6</b>

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

Give details of the document here:

1. QP G&J/Q 0402– Annexure 2

## SECTION 1

### ASSESSMENT

#### **Body or Bodies which will carry out assessment:**

- a) Five Elements Business Solutions Pvt. Ltd.
- b) CoCubes Technologies Pvt. Ltd
- c) CindrellInfotech Private Limited
- d) Skill Training Assessment Management Partners, Ltd.
- e) AssessPeople Services (India) Pvt. Ltd.
- f) Manipal City and Guilds
- g) Induslynk Training Services Pvt. Ltd (Mettl)
- h) Navriti Technologies Pvt. Ltd
- i) The Assessors Guild (TAG)
- j) Aspiring Minds Assessment private Limited
- k) Edu World Consultants Pvt. Ltd

These assessing agencies have been chosen after thorough scrutiny of the credentials presented in response to the RFP. A set was made of the documents received from the assessment agencies. To check the knowledge of the assessing agencies they were required to set a question bank and were also required to find assessors with minimum 5 years of experience for the specified job roles. The documents were then verified by the assessment manager and cross verified by CEO / COO. Then the set of documents were submitted to the Governing concern for review and approving the assessment agency for the affiliation. The Governing concern reviewed the entire set along with set of question bank and the assessors profile and approved or rejected the same by signing the covering page.

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

Yes the assessment body shall be responsible for RPL assessment.

In RPL, the candidate has acquired the skills and knowledge while working and requires assessment and certification only. RPL is the acknowledgement of skills and knowledge obtained through:

- formal training
- work experience
- life experiences

The focus of RPL is the competence gained from these experiences; not how, when or where the learning occurred.

Process or steps in RPL assessments

1. Offering RPL to potential candidates
2. Providing information to the candidate
3. Self-assessment
4. Evidence collation
5. Assessment and making the decision
6. Feedback to the candidate
7. Documentation of outcomes

**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:**

- a) The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria.
- b) The assessment papers are developed by Subject Matter Experts (SME) available with the Assessment Agency as per the performance and assessment criteria mentioned in the Qualification Packs.
- c) The assessments papers are also checked for the various outcome based parameters such as quality, time taken, precision, tools & equipment requirement, etc.
- d) The assessments are designed so as to assess maximum parts during the practical hands on work. Duties and responsibility of an Assayer and Hallmark Administrator are also assessed. The technical limitations at the training centres are taken care in theory and viva.
- e) The assessment agencies are instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments.
- f) The assessment agencies are instructed to Ideally have assessor with right mix of industry experience, academia and these are detailed in Assessment Agency Protocol
- g) The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to Assessment Framework, competency based assessments, assessors guide etc.
- h) The assessors are provided with assessors guide developed by the Subject Matter Expert of the assessment agency or by Gem & jewellery SSC as per the assessment framework. The assessment guides are developed to ensure the maximum possible consistency / transparency in the assessment by different assessors and elaborate on the following
  1. Qualification Pack Structure
  2. Guidance for the assessor to conduct theory, practical and viva assessments
  3. Guidance for trainees to be given by assessor before the start of the assessments.
  4. Guidance on assessments process, practical brief with steps of operations practical observation checklist Attendance Sheet and mark sheet
  5. Viva guidance for uniformity and consistency across the batch.
  6. Guidance on assessment evidence collection

The assessment results are backed by evidences collected by assessors.

1. The assessor needs to collect a copy of the attendance for the training done under the scheme. The attendance sheets are signed and stamped by the in charge /Head of the Training Centre.
2. The assessor needs to verify the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same needs to be mentioned in the attendance sheet. In case of suspicion, the assessor should authenticate and cross verify trainee's credentials in the enrolment form.
3. The assessor needs to take a photograph of all the students along with the centre name/ banner at the back as evidence.
4. The assessor needs to carry a camera to click photograph of the trainees working on the job and giving theory exam as evidence.
5. The assessor also needs to carry a photo ID card.

6. The assessor also needs to take the photographs as evidence from appropriate angles/ sides of the final work piece/job submitted by the trainee.
7. The details on assessment framework are elaborated in Gem & jewellery SSC Protocol for Accreditation of Assessment Agencies and Assessment Framework.

All accredited Assessment Agency follow the “Gem & jewellery SSC Protocol for Accreditation of Assessment Agencies and Assessment Framework”. Each NOS in the Qualification Pack (QP) is assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Performance Criteria in the NOS will be assigned marks for or practical based on relative importance, criticality of function and training infrastructure.

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

Give details of the document(s) here:

1. Format for EOI for AA Accreditation from GJSCI - Annexure 3
2. Protocol for Accreditation of Assessment Agencies and Assessment Framework – Annexure 4

## ASSESSMENT EVIDENCE

Complete a grid for each grouping of NOS, assessment unit or other component as listed in the entry on the structure of the qualification on page 1.

<b>CRITERIA FOR ASSESSMENT OF TRAINEES</b>					
<b>Job Role</b> Assayer and Hallmarker					
<b>Qualification Pack</b> G&J/Q0402					
<b>Sector Skill Council</b> Gem & Jewellery					
<b>Guidelines for Assessment</b>					
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 centre (as per assessment criteria below)					
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on this criteria					
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS					
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack					
			Marks Allocation		
		Total Mark (100)	Out Of	Theory	Skills Practical
<b>1. G&amp;J/N0402 Assay and Administer Hallmark on the precious-metal product</b>	PC1. find the composition of gold using XRF machine	<b>80</b>	9	1	8
	PC2. place the gold metal or jewellery in appropriate points and confirm the results		7	1	6
	PC3. record the findings in the specified format		8	2	6
	PC4. find the composition of gold in the metal or jewellery using touchstone process		6	0	6
	PC5. use effectively the tools for touchstone method such as touchstone, test needle, test acids		7	1	6
	PC6. visually compare and identify the results of the testing process		6	0	6
	PC7. comply with the standards and perform the process accurately		7	1	6



	PC8. accurately weigh the product and record them at each stage of process		5	1	4
	PC9. operate equipments for cupellation process and set parameters appropriately such as temperature as per specification		4	0	4
	PC10. identify and handle different types of acids appropriately		5	1	4
	PC11. record the findings at each stage for tracking		3	0	3
	PC12. ensure that there is no mix up of different products during assaying process		4	1	3
	PC13. determine the composition (Karatage) of gold in the alloy after fire assay process by weighing them		2	0	2
	PC14. perform all the necessary steps and tests in the assaying process to determine the gold Karatage		3	1	2
	PC15. execute the work in each stage as per the quality standards		1	0	1
	PC16. print the gold metal or jewellery with appropriate hallmark sign using laser printing machine or any other equipment		1	0	1
	PC17. ensure that all the contents are printed as per BIS standard		1	0	1
	PC18. ensure that the fineness mark is printed according to the assaying process' result		1	0	1
		<b>Total</b>	80	10	70
<b>2. G&amp;J/N9910 Maintain IPR and respect copyright</b>	PC1. spot plagiarism and report	<b>3</b>	1	1	0
	PC2. understand rationale of patents and IPR		1	1	0
	PC3. avoid being involved in IPR violations		1	1	0
		<b>Total</b>	3	3	0
<b>3.G&amp;J/N9912Co ordinate with others</b>	PC1. Understand the work output requirements	<b>9</b>	3	1	2
	PC2. Understand company policy and rule		1	1	0

	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays		2	1	1
	PC4. Put team over individual goals		2	1	1
	PC5. Conflicts resolution and multi-tasking		1	0	1
		<b>Total</b>	<b>9</b>	<b>4</b>	<b>5</b>
<b>4.G&amp;J/N9914 Maintain safe and clean work environment</b>	PC1. Spot and report potential hazards on time		3	1	2
	PC2. Follow company policy and rules regarding use of hazardous materials		3	1	2
	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays	<b>8</b>	2	1	1
		<b>Total</b>	<b>8</b>	<b>3</b>	<b>5</b>

## SECTION 2

### EVIDENCE OF NEED

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

Please refer to the attached list of job roles and occupations as per the attachment and their career paths as per Annexure 1, which have been derived through extensive industry interactions. 16 Large scale industries, 8 Medium Size industries and 12 small industries were involved in the validation process to make the Qualification Packs viable to the current industry requirements.

#### List of industries involved in the Validation process for the- QP Assayer and Hallmark Administrator:

S No.	Large scale industries	Medium scale industries	Small scale industries
1.	N.M. Karel & Sons	A.V.M. Jewellery works	BhagyaLaxmi Jewellers
2.	Mars	MahaaLaxmi Fine Arts	Metal Art Creation Pvt. Ltd
3.	Shree Raj Jewellers	Rams Jewels	A.B.Jewels
4.	Thottan Exports	RG Bangle Private Ltd	V.S.V Jewel Tech Pvt Ltd
5.	St. Antony's Jewellery Works	A.V.M. Jewellery works	Mehta Gold
6.	Derewala	MahaaLaxmi Fine Arts	Sri Vetrivel Links
7.	Pink City Jewel House Pvt. Ltd.	Rams Jewels	BhagyaLaxmi Jewellers
8.	Valentine Jewellery India Pvt Ltd	RG Bangle Private Ltd	Metal Art Creation Pvt. Ltd
9.	N.M. Karel & Sons		A.B.Jewels
10.	Mars		V.S.V Jewel Tech Pvt Ltd
11.	Shree Raj Jewellers		Mehta Gold
12.	Thottan Exports		Sri Vetrivel Links
13.	St. Antony's Jewellery Works		
14.	Derewala		
15.	Pink City Jewel House Pvt. Ltd.		
16.	Valentine Jewellery India Pvt Ltd		

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

The Estimated uptake between 2013 and 2022 is 17595 under Assayer and Hallmark Administrator. For details of the calculations please Refer to Annexure-5.

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

QPs for Job Roles of various related SSC's were studied to ensure that there is no duplicity

**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?**

The comments, feedback and suggestions were collected through interaction with industry. The same will be compiled and justifiable changes will be incorporated in the next/updated version of the QP. This QP is set to be revised post 15th July 2015.

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

Give details of the document(s) here:

1. Skill gap report for Gem & Jewellery sector\_2008-2022– Annexure 5

## SECTION 3

### SUMMARY EVIDENCE OF LEVEL

Summary of Direct Evidence:

Justify the NSQF level allocated to the QP by building upon the five descriptors of NSQF. Explain the reasons for allocating the level to the QP.

Generic NOS is/are linked to the overall authority attached to the job role.

Process required	Professional Knowledge	Professional Skills	Core Skills	Responsibility	Level
The Assayer and hallmarker needs to have wide knowledge of the procedures to test the gold alloy metal or jewellery through various assaying processes and stamp the hallmark. Assaying involves multiple stages of assessment to determine the proportion of gold in the alloy. After performing the assaying process and analysing the results, marks the precious metal or jewellery with internationally defined symbols and characters for hallmarking.	The Assayer and hallmarker should know the properties of various metals involved in gold jewellery and testing processes such as silver, iridium, etc., different types of assaying process such as using XRF machine, touchstone method and fire assay process, chemicals used in testing process and their properties, different types of hallmarks for different Karatages, parameters to be considered for finding the Karatage of gold in the product, operations of different equipment used in the assaying process such as XRF machine, cupellation process machine and the contents of the hallmark sign and their purpose. He should also know to use computer system for recording of findings and documenting them and ensures that the policies and standards maintained by the company are being followed.	The Assayer and hallmarker needs to demonstrate wide range of cognitive and practical skills to read notes on the gold metal or jewellery and use equipments and testing materials accordingly, use correct test needle for rubbing process in touchstone method and use the XRF machine. He also reads notes and descriptions on the diamond packets/bags, accurately record the weight of gold metal or jewellery, calculates the composition of gold (Karatage), resolves conflict and problems and ensures that the issue and return procedures are being followed. Also identifies the problems with faulty equipment and takes appropriate action by getting them rectified and spots plagiarism and reports and alert authorities in time of any potential sources of violations	The Assayer and hallmarker collects data from various sources, documents and maintains all his data in an organized manner, analyses the data and performs various calculation to generate all the required reports. He writes clear notes and instructions, reads job sheets and interprets technical details mentioned in the job sheet and makes notes and instructions in terms of process to be followed. Also does effective and error free communication with his team members and seniors and, provides support, builds team coordination and resolves team member grievances. Applies problem-solving approaches in different situations, discusses, plans and distributes task, schedules, and work-loads to his team members and co-workers.	The Assayer and hallmarker is responsible for performing preliminary assay process, performing assaying through touchstone process, preparing metal or jewellery for fire assay process, performing fire assay and Hallmarking the product and making assaying reports.	6
Follows level 6	Follows level 6	Follows level 6	Follows level 6	Follows level 6	Follows level 6

**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):

## **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?**

Please refer to attached career path as per annexure 1 which clearly defines the career path.

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

Give details of the document(s) here:

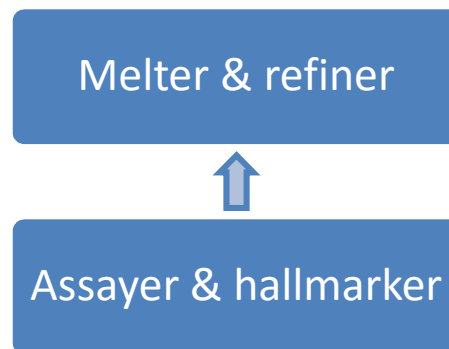
2. Career Path of Assayer and Hallmark Administrator- Annexure 1
3. QP G&J/Q 0402- Annexure 2

## Annexure 1

### OM & Career Path

The career progression would be as follows:

1. Assayer & hallmarker
2. Melter & refiner



[Annexure 2- QP G&J/ Q0402](#)



**Annexure 3 - Format for EOI for AA Accreditation from GJSCI**

[Annexure 4- Protocol for Accreditation of Assessment Agencies and Assessment Framework](#)

**Annexure 5\_Manpower Requirement for Gems & Jewellery Sector for the period 2013-2022**