

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

**Hydrocarbon Sector Skill Council**

0120-2594659, +91-9911746601

**Name and address of submitting body:**

**Hydrocarbon Sector Skill Council**

OIDB Bhawan, 2<sup>nd</sup> Floor, Plot No.2, Sector-73

Noida-201301 0120

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

<b>Name:</b>	Vishal Sharma
<b>Position in the organisation:</b>	Consultant
<b>Address if different from above:</b>	Same-as-above
<b>Tel number(s):</b>	0120-2594659
<b>E-mail address:</b>	hsscindia.2016@gmail.com

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

1. Hydrocarbon Sector Profile
2. Qualification Pack- LPG Mechanic
3. Occupational Map – Hydrocarbon Sector
4. List of the companies participated in the development of QP
5. Composition of Task Force committee members
6. Industry Validation/Communication

## SUMMARY

<b>Qualification Title</b>	LPG Mechanic
<b>Qualification Code</b>	HYC/Q 3401
<b>Nature and purpose of the qualification</b>	Learners after attaining the certificate of LPG Mechanic will be competent to perform the job of installation of LPG cylinder of the new connection at customer premises, while following standard safety procedures
<b>Body/bodies which will award the qualification</b>	Hydrocarbon Sector Skill Council
<b>Body which will accredit providers to offer courses leading to the qualification</b>	Hydrocarbon Sector Skill Council
<b>Body/bodies which will carry out assessment of learners</b>	Body/Bodies empanelled by Hydrocarbon Sector Skill Council will carry out the assessment of learners
<b>Occupation(s) to which the qualification gives access</b>	This Qualification give the access to learners in the occupation of LPG Installation and complaint handling
<b>Licensing requirements</b>	N/A
<b>Level of the qualification in the NSQF</b>	Level 4
<b>Anticipated volume of training/learning required to complete the qualification</b>	200 Hours
<b>Entry requirements and/or recommendations</b>	18 years
<b>Progression from the qualification</b>	An individual may progress to the Supervisor Position in LPG Distribution
<b>Planned arrangements for the Recognition of Prior learning (RPL)</b>	Yes
<b>International comparability where known</b>	Study for the international comparability is yet to be done
<b>Date of planned review of the qualification.</b>	2 years after approval of the Qualification
<b>Formal structure of the qualification</b>	

Title of component and identification code.	Mandatory/ Optional	Estimated size (learning hours)	Level
HYC/N 3401 Carry out Installation of LPG Cylinders at Customer Premises with adherence to Safety	M	200 Hours	4
HYC/N 3402 Attending complaints of LPG leakage, allied LPG equipment's & non-functioning of equipment	M		4
HYC/N 3403 carry out mandatory inspection of consumer premises once in every two years	M		4
HYC/N 3103 Maintain Health and Hygiene habits	M		4

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

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information. Qualification Pack – LPG Mechanic

## **SECTION 1**

### **ASSESSMENT**

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

Bodies/Bodies empanelled by Hydrocarbon Sector Skill Council for conducting the assessment will carry out the assessment of learners

#### **How will RPL assessment be managed and who will carry it out?**

Under the Recognition of Prior Learning (RPL), the candidates enrolled and the assessment will be carried out as per the assessment criteria and assessment outcome of the full Qualification and the process of assessment will be carry out by the body/bodies empanelled by Hydrocarbon Sector Skill Council

In RPL, the candidate already has the skills and knowledge while working on the job from long, the learners only requires to undergo the assessment process and certification to awarded to the candidates who successfully clears the assessment. The tentative process of RPL would include the flowing stages:

- 1 Cluster Mapping and Mobilisation of the candidates
- 2 Counselling & Pre-Screening
- 4 Enrolment/Batch formation
- 5 Orientation, Impartation of minimum hour training program and Feedback
- 7 Assessment by HSSC empanelled body
- 8 Evaluation of Assessment Result
- 9 Issuance of the Certificate to successful candidates

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

The assessment of candidates/trainees will be on the basis on assessment outcome/assessment criteria of the Qualification. In the assessment criteria for each NOS marks have been defined for theoretical and practical skills, on which the candidate will be assessed. The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria.

**Theory/Knowledge test** – This section will test the trainee on his/her knowledge on the subject/trade. The test will be carried out online/offline with a set of random Question paper. that include multiple choice questions, True/False Statement, audio-video question etc.

The Question Bank will be developed by Subject Matter Experts (SME) of the Oil & Gas sector and these Questions again be vetted by the Industry Experts, the assessments are designed so as to assess maximum parts during the practical

hands on work.

**Practical/Demonstration Test** – This stage involves the face to face interaction between Assessor and each trainee. The practical knowledge will be tested through Trade Test which demonstrates the skill required for the job, by which assessor would be able to evaluate the trainee on his/her practical knowledge on respective Qualification.

To ensure the maximum possible consistency in the assessment by different assessors at different locations, the assessors are to be elaborated about the stages involved in the assessment and the assessor role in the assessment process, the following also elaborated to the assessor before assessment:

- Qualification Pack Structure
- Guidance for the assessor to conduct theory and practical assessments
- Guidance for trainees to be given by assessor before the start of the assessments.
- Guidance on assessments process, practical brief with steps of operations practical observation checklist
- Practical/Demonstration Test guidance for uniformity and consistency.
- Guidance on assessment evidence collection (signed attendance copy, verification of the authenticity of the candidate by checking the photo ID card, Photographs-while assessment undergoing etc.)

The empanelled assessment agencies will be 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. The assessment agencies are instructed to Ideally have assessor with sufficient amount of relevant industry experience related to Qualification. The assessors will also have scrutinized and made to undergo induction of Assessment Framework, competency based assessments etc.

**Assessment strategy:**

- For each Qualification Pack assessment criteria has developed, which describe the weightage for each NOS/Performance criteria (PC) and assigned marks based for each NOS separately for theoretical and practical skill
- The question bank will be developed by the subject matter expert to assess the theoretical and practical knowledge.
- The accredited assessment agency will carry out the assessment process on the date proposed after completion of the training. The assessment will be carried out on the basis of the two parameters i.e. Theoretical test and

**Practical test.**

- The result of the assessment will be shared by assessment body to the HSSC for review and compliance then after the result will be process for the generation of the certificates of passed candidates.
- Assessments can be conducted in the regional languages in case of any specific requirement form the concerned Training Provider.
- For ensuring the impartial assessment it will be ensured that the Assessment Bodies (AB) will not involve in training delivery.

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

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

## ASSESSMENT EVIDENCE

**Complete a grid for each component as listed in “Formal structure of the the qualification” in the Summary.**

*NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – ie Learning Outcomes to be assessed, assessment criteria and the means of assessment.*

**Title of Component:**

**Job Role:** LPG Mechnic

**Qualification Pack:** HYC/Q 3401

**Sector Skill Council:** Hydrocarbon 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 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 these criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 60% 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>NOS</b>	<b>Performance Criterion</b>	<b>Total Marks (600)</b>	<b>Out of</b>	<b>Theory</b>	<b>Skill Practical</b>
<b>INSTALATION OF LPG CYLLINDERS AT CUSTOMER PREMISES WITH ADHERENCE TO SAFETY</b>	PC1. Visit the Distributor Show Room, collect the new customer details, address, phone number etc. as per the day's schedule and plan installation.	300	10	5	5
	PC2. Ensure the tool kit is ready with all the essential tools and replenish the required consumables		10	5	5
	PC3. Ensure all the requisite details are printed on the documents carried.		10	5	5
	PC4. Carry ID card provided by Distributor at all times, and wear proper uniform while visiting the customer premises for installation.		5	2	3
	PC5. Ensure sufficient ventilation in the place where filled LPG cylinders are to be kept.		10	5	5
	PC6. Ensure that ventilation for cupboards is provided, if cylinders are placed in the cupboard (Domestic) OR PC33. Ensure cylinders are installed at places which are free from over heating, proximity to steam pipes and		10	5	5

boilers.(Industrial / Commercial)			
PC7. Ensure sufficient space for keeping cylinder in vertical position only	5	2	3
PC8. Ensure to stick the tear off slip with 'house-lock' intimation on the customer's main door if the house is locked, and inform the showroom supervisor accordingly	5	3	2
PC9. Ensure availability of Fire Extinguishers (DCP / CO2), two buckets filled with water, two buckets filled with sand are available at Industrial and Commercial Installation & PC10. Ensure specification of Fire Extinguishers is as per IS 6044 (Part 1 : 2000) OR PC15. Ensure there are no other inflammable items in the kitchen and no open flames during installation.	16	8	8
PC11. Greet the customer	2	0	2
PC12. Educate the customer on properties of LPG and safe usage of LPG equipment	7	3	4
PC13. Avoid making noise while Installing and moving the cylinder in the house.	2	1	1
PC14. Roll the cylinder on foot ring to the kitchen	2	1	1
PC16. Ensure cylinders to be installed in vertical position with valve on top and safety	10	5	5



cap tied on to the stay plate of the cylinder			
PC17 . Ensure to place hot plate / stove at a higher level than the cylinder	5	3	2
PC18. Ensure that there are no T-joints between cylinder and stove / hot plate	5	3	2
PC19. Ensure cylinders are not installed or used below ground level, in cellar / basement	5	3	2
PC20. Ensure no trolley is used for keeping cylinders in domestic / industrial installation	5	3	2
PC21. Open the seal, connect the regulator with the cylinder and ensure that the regulator fits the cylinder properly	5	2	3
PC22. Check for any leakage in the cylinder (from the joint and valve)	10	5	5
PC23. Check the pressure regulator and rubber hose while installing the cylinder	10	5	5
PC24. Switch on the regulator	1	0	1
PC25. Switch on the gas stove to make sure that flame is ignited	3	0	3
PC26. In case of any leakage, remove the regulator, put on the safety cap on the valve of the cylinder, mark the cylinder as faulty and send it back to the Godown.	10	5	5
PC27. In case of faulty O-ring, replace it	3	2	1
PC28. Demonstrate the use with a live demo to the	12	6	6

customer			
PC29. Switch off the knob of the gas stove and also the regulator	1	0	1
PC30. Ensure all equipment such as pressure regulator and other installation material (domestic / industrial / commercial installation) comply with distributing company's stipulations and adhere to IS specifications, wherever applicable. OR PC31. Ensure BIS standards while carrying out installation for industrial purpose	10	5	5
PC32. Ensure usage of ISI mark rubber tube without any cover / insulation	5	2	3
PC34. Ensure cylinders are installed at places free from obstruction / prone for damage or vulnerable to unsafe conditions OR PC35. Ensure cylinders are placed at least 1 meter away from culverts / depressions / openings to prevent hazardous collection of gas	10	5	5
PC36. Explain the safety instructions for using the LPG cylinder to the customer	10	5	5
PC37. Provide details of emergency contacts and online complaint service to the customer	10	5	5
PC38. Obtain the customer's signature on the counter slip and retain the copy	4	2	2
PC39. Update the serial number, date of installation in the customer's book	4	2	2

	PC40. Communicate politely to the customer against unsafe practices		6	3	3
	PC41. Inform the customer about available ARB products at his distributorship		3	2	1
	PC42. Ask the customer for feedback, record the same and convey the same to the showroom staff		10	5	5
	PC43. Thank the customer before leaving		2	0	2
	PC44. Return the relevant documents/feedback form to showroom		3	3	0
	PC 45. Create customer awareness regarding safe usage of LPG and allied equipment		10	5	5
	PC 46. Conduct Safety Clinic on a weekly basis		10	5	5
	PC 47. Ensure customer always use ISI mark hot plate and Suraksha LPG hose		10	5	5
	PC 48 Educate customer on safe usage of LPG / LPG equipment (cylinder, valve, regulator, gas stove) during every visit, including installation & post installation		14	7	7
		Total	300	148	152
	PC1. Receive the complaint		5	2	3
	PC2. listen to the customer attentively and politely respond to them		10	5	5
	PC3. Attend leakage complaints within 30 minutes		10	5	5
	PC4. Attend complaints on stoves / burners within 24 hours		10	5	5
	PC5. ensure clarity, honesty and transparency while dealing with customers		10	5	5
	PC6. provide excellent		5	3	2

ATTENDING COMPLAINTS	service to existing customers	150			
	PC7. build a good rapport with the customers by discussing with them about general likes and dislikes in the market, latest trends, etc		5	2	3
	PC8. create an awareness on the various schemes and benefits for customers by using various marketing strategies		7	5	2
	PC9. increasing the brand value of the LPG Agency		4	2	2
	PC10. ensure customers' expectations are met		4	2	2
	PC11. tackle and intervene angry customers promptly to maintain the brand image of the LPG Agency		10	5	5
	PC12. convey customers' feedback (especially, negative feedback) to concerned authority		10	5	5
	PC 13. Receive a regular feedback from the customers on current service, complaints and improvements to be made		10	5	5
	PC14. understand the customer's needs for service quality requirements		10	5	5
	PC15 resolve all complaints within 48 hours and convey it to concerned authority		10	5	5
	PC16. maintain a record of all customer complaints and the time frame of their resolution		10	5	5
	PC17. ensure that complaints from District Authorities, Tehshildar, Police, Collector etc. are attended & resolved on		10	5	5

	priority				
	PC18. carry out root-cause analysis of repetitive complaints to avoid recurrence		10	5	5
		Total	150	76	74
Mandatory Inspection	PC1. Carry out Mandatory Inspection for all customers under the Gas agency, as per the “mandatory inspection format for domestic gas installation” checklist or through mobile app.	75	20	10	10
	PC2: Inform customer in advance regarding the mandatory inspection.		5	3	2
	PC3: Wear proper uniform with identity card before going to any customer premises		10	5	5
	PC4: Take pictures / photos of defective equipment or unsafe practices witnessed at customer’s premises and upload in portal		10	5	5
	PC5. Update all inspection points in Inspection Portal on same day, if inspection is carried out with hardcopy check list.		10	5	5
	PC6. Explain the need and importance of Mandatory Inspections		10	5	5
	PC7. Receive regular feedback from the customers on current service, complaints and improvements to be made		10	5	5
		Total	75	38	37
Maintain Health & Hygiene Habits	PC1. sanitise hands whenever necessary	75	5	2	3
	PC2. maintain dental hygiene		5	2	3
	PC3. ensure cleanliness and		15	7	8

	maintain a well-groomed look			
	PC4. report on personal health issues related to injury and infectious diseases	10	5	5
	PC5. use a tissue, cover the mouth and turn away from people and food items while sneezing or coughing	5	2	3
	PC6. wash/wipe hands after coughing and sneezing	5	2	3
	PC7. undergo preventive health check-ups at regular intervals	10	5	5
	PC8. take prompt treatment from the doctor in case of illness and injuries	10	5	5
	PC9. get appropriate precautionary vaccines regularly	5	2	3
	PC10. have a general sense of hygiene and appreciation for cleanliness	5	2	3
	<b>Total</b>	<b>75</b>	<b>34</b>	<b>41</b>
<b>Means of assessment 1</b>				
<p>The assessment comprises of:</p> <ul style="list-style-type: none"> <li>➤ Theory/Knowledge test</li> <li>➤ Practical/Demonstration Test</li> </ul>				
<b>Means of assessment 2</b>				
Add boxes as required.				
<b>Pass/Fail</b>				
As per the NSDC, SSC guidelines, the passing percentage will be on aggregate 60%.				

**SECTION 2**  
**EVIDENCE OF LEVEL**

LPG Mechanic - HYC/ Q 3401					
Process required	Professional Knowledge	Professional Skills	Core Skills	Responsibility	Level
<p>The LPG Mechanic at this job need to install the LPG cylinders new connection at the customer premises, while following standard safety procedures. The individual must also complete the financial transaction for the service rendered</p> <p>The activities for this Qualification are the familiar and routine activities in nature and he handles all this independently (with minimal or no supervision).</p>	<p>The individual needs to know and understand the LPG gas cylinders and its uses/ characteristics of LPG and the system of filling LPG cylinders and how LPG cylinders are checked to ensure there is no defects</p> <p>The individual needs to know the tools, equipment and other requirements to be carried while on installing and method to fit the cylinder in the consumer's kitchen</p> <p>The individual desired to have the fair knowledge of it operation.</p>	<p>The individual should must able to read and interpret information correctly from various job specification documents, manuals, health and safety instructions, memos, etc. applicable to the job in English and/or local language</p> <p>The Individual should understand the latent needs of the customer and maintain a positive and effective relationship with the customer</p> <p>The Individual should also be expected to explain the safe use of LPG</p>	<p>The individual is expected to have basic communication skills to fill appropriate forms, process charts and activity logs, etc. and also understand application of basic arithmetic principles.</p> <p>The individual needs to informs the consumer about safety tips, latest schemes, emergency number, complaint number, booking number printed on the cash memo, etc.)</p> <p>He/she is expected to conduct themselves in ways, which</p>	<p>The Individuals is responsible to perform the job of installation of LPG cylinder of the new connection at customer premises, while following standard safety procedures. The individual is directly responsible for the outcome and responsible for own work and learning process which justifies the pegging of the QP at level 4</p> <p>The LPG Mechanic is majorly responsible for his own job and self-learning process which justifies the pegging of the</p>	4

	He/she should know the safety standards and causes of fire and safety precautions in case of Cylinder leakage	<p>cylinders and tips to save fuel to the consumers</p> <p>He/she have capacity to apply professional skills needed to operate equipment with the understanding of principles needed to explore and adapt systems.</p>	show a basic understanding of the social and professional environment of working environment.	QP at level 4 and not directly involved in some learning of others (which is a requirement for Level 5). In his routine activity, he is free from supervision.	
Level 4	Level 4	Level 4	Level 4	Level 4	



### **SECTION 3**

#### **EVIDENCE OF NEED**

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

LPG Mechanic is the person who responds first, in case of any LPG leakage or emergencies at customer premises and he is the one point contact. Further, LPG Mechanic has to conduct mandatory checks during installation of new connections. He should possess the requisite knowledge & skills and should be trained to handle emergencies and mandatory checks. Each of the Oil Companies have their independent training programme for the work force working at Gas Agencies. However, there are no standard training / Qualification Pack all across the Oil Industry, which the work force should possess at the time of induction for performing the job role of LPG Mechanic. Hence need was felt by the Ministry of Petroleum & Natural Gas (MOP&NG) in consultation with the members of Industry Task force of HSSC, to develop Qualification Pack for this trade.

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

As of 01.01.2016, there are around 18500 LPG Distributorships across the country and many of the distributors are having limited number of LPG Mechanics. For attending complaints and carrying out mandatory inspections, for every 4000 customers, one LPG Mechanic is required. With Pradhan Mantri Ujwala Yojana (PMUY) also coming into effect, and to ensure LPG usage in every house hold, number of consumers will increase enormously. In order to carry out mandatory inspections in every customer premises, attending to LPG leakage complaints 24/7 and to conduct safety clinics, recruitment of new LPG Mechanics is to be done, with a target to provide one LPG Mechanic for every 4000 customers.

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

Currently the LPG mechanics working at LPG distributorships have no formal training at the time of induction / selection. Most of them use their experience in delivering their job roles. Since this is the first time a structured qualification pack of LPG mechanic is being developed through Hydrocarbon Sector Skill Council, there is no duplication of existing qualification.

##### **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 Qualification Pack was circulated among the industry members for their inputs and feedback, however the Qualification shall be reviewed by the industry members after two years of the approval.

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

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

#### **SECTION 4** **EVIDENCE OF 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?**

An individual may progress to the Supervisory position

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

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.