

NSDA Reference

To be added by NSDA

QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

Name and address of submitting body:

IPSC

Indian Plumbing Skills Council

B-168/169, Ground Floor,

Okhla Indl. Area Phase 1,

DDA Sheds, New Delhi-110020.

T: +91 11 41513580, 41400556

Name and contact details of individual dealing with the submission

Name: Harpreet Singh

Position in the organisation: Vice President

Address if different from above

Tel number(s) M:- 9555377055 T:+91 11 41513580,41400556

E-mail address: harpreet@ipssc.in

List of documents submitted in support of the Qualifications File

- 1 Composition of the Technical Committee
- 2 RFP for development of Occupational Standards
- 3 Selection process of the Consultants to develop Occupational Standards
- 4 Occupational Map
- 5 Draft MoU with Industry
- 6 Qualification Pack annexure-I
- 7 Career map annexure –II
- 8 List of assessment bodies-Annexure -III

1. QUALIFICATION FILE SUMMARY

Qualification Title	Municipal Water and Sewage Assessor PSC/ Q0203		
Body/bodies which will assess candidates	IPSC		
Body/bodies which will award the certificate for the qualification.	IPSC		
Body which will accredit providers to offer the qualification.	IPSC		
Occupation(s) to which the qualification gives access	A Municipal Water and Sewage Assessor is responsible for carrying out readings of water meter installed in housing, commercial and institutional setups and collection of water and waste water samples for carrying out quality checks.		
Proposed level of the qualification in the NSQF.	Level-3		
Anticipated volume of training/learning required to complete the qualification.	240 Hrs		
Entry requirements / recommendations.	5 th (To be revised to 10 th post 31 st December, 2017)		
Progression from the qualification.	Level -5 Plumbing Draftsman		
Planned arrangements for RPL.	RPL arrangements and policies are under development		
International Comparability	The Technical parts of the NOSs are comparable to Canadian, British and Australian standards. However Numeracy, literacy and basic science levels are lower to match with the existing Indian conditions. Apart from this the Qualification pack, as per the NSDC policy for our country, is for a job role and on a trade or occupation. Following the same there cannot be qualification pack comparability.		
Formal structure of the qualification			
Title of unit or other component (include any identification code used)	Mandatory/ Optional	Estimated size (learning hours)	Level

1. PSC/ N 0217 (Inspection of water meters and assistance in water quality checks)	Mandatory	144 Hrs	7
2. PSC/ N 0211 (Work effectively with colleagues)	Mandatory	40 Hrs	Common across level 3,5,6-8
3. PSC/ N 0212 (Keep the working environment healthy, safe and secure)	Mandatory	56 Hrs	Common across level 3,5,6-8

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:

SECTION 1

ASSESSMENT

Name of assessment body:

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

http://ipsc.in/training_assesement_partners.php- Annexure -III

Will the assessment body be responsible for RPL assessment?

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:

PURPOSE OF ASSESSMENT

The purpose of the assessment is to identify if the learner has completely comprehended the technicalities of the job role of a Municipal Water and Sewage Assessor and thus, allows learners to progress to the LEVEL 5 and above. It also builds up the personal attributes of the learner to undertake work independently, become a good team player by being a competent listener, apt at taking instructions, and overall develop into a result oriented and positive person comfortable with laborious task of the trade.

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

Unit Knowledge learning outcome	Approximate coverage	Valuation	SCALING METHOD Pass mark: 70%
Knowledge of water meters design and their functioning	Assignments Practical Field work	30%	
Knowledge of various techniques for investigation, calculation, and testing to be for drinking water	Assignments and Practical Field work	30%	
Understanding of receiving work instructions and discussing the project/design with seniors	Assignments and Practical Field work	20%	
Knowledge of time management for the work	Assignments and Practical Field work	10%	
Understanding of various safety measures and equipments	Assignments and Practical Field work	10%	

Please attach any documents giving further information about assessment and/or RPL.
Give details of the document(s) here:

The assessment comprises of a combination three assessment techniques i.e.

- 1 Practical Assessment
- 2 Viva/ Structured Interview
- 3 Written Assessments

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

Municipal Water and Sewage Assessor

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IPSC

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

Assessable outcome	Assessable criteria	Total Mark (300 MARKS)	Out Of	Marks Allocation	
				Theor y	Skills Practic al
1. PSC/ N 0217 (Inspection of water meters and assistance in water quality checks)	PC1 take meter readings correctly	100	5	3	2
	PC2. perform timely inspection of water meters		5	2	3
	PC3. distinguish domestic water meters from commercial and institutional water meters		5	3	2
	PC4 identify whether the meter is running correctly or not		5	2	3

	PC5. take pictures of the readings		10	5	5
	PC6. maintain log of water meter readings		10	5	5
	PC7. develop and determine methods and procedures for sample collection		10	5	5
	PC8. collect water/wastewater samples in sufficient quantity as needed		10	5	5
	PC9. collect water/wastewater samples as and when required		10	5	5
	PC10. undertake health and safety precautions while collecting samples		10	5	5
	PC11. store / transfer samples in appropriate way		10	5	5
	PC12. clean work area and/or laboratory equipment in order to maintain hygiene		5	3	2
	PC13. maintain log of sample collections		5	2	3
		Total	100	50	50
2. PSC/N0211 (work effectively with colleagues)	Pc1. Coordinate all work instructions and discuss with various concerned departments	100	5	2	3

	PC2. Communicate and coordinate task status, repairs and maintenance of tools and equipment as required with various departments		5	3	2
	PC3. Manage any potential hazards and expected process disruptions		10	5	5
	PC4. Get the work reviewed and handover completed task to the concerned department		10	5	5
	PC5. Receive feedback from the concerned department		10	5	5
	PC6. Report any anticipated reasons for delays to the organization		10	5	5
	PC7. Work as a team with colleagues and share work as per the work load and skills		10	5	5
	PC8. Work with colleagues of other teams		10	5	5
	PC9. Communicate and discuss work flow related difficulties in order to find solution with mutual agreement		10	5	5
	PC10. Put team over individual goals		10	5	5
	PC11. Resolve conflicts		10	5	5
		Total	100	50	50
3.PSC/N0212Keep the working environment healthy, safe and secure	Pc1. Comply with organization's current health, safety and security policies and procedures	100	10	5	5
	PC2. Communicate any identified breaches in health, safety, and security policies and procedures to		15	7	8

	the designated person			
	PC3. Identify and remove any hazards that can be dealt safely, competently and within the limits of individual's authority	15	8	7
	PC4. Communicate hazards to the relevant person in line with organizational procedures and warn other people who may be affected	15	7	8
	PC5. Follow organization's emergency procedures promptly, calmly, and efficiently	15	8	7
	PC6. Identify and recommend opportunities for improving health, safety, and security to the designated person	15	7	8
	PC7. Complete any health and safety records legibly and accurately	15	8	7
	Total	100	50	50

SECTION 2

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

- 70 Job roles identified by the Industry including our Governing Board.
- 30-32 job roles were scrutinized and given the project to IMaCS
- 25 job roles finalized after industry interaction during the workshops and individual meetings.

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

25 Job roles were identified after understanding the market need and demand. Our Agency met with around 200 industry people while developing these Qualification Packs. Individual interactions, workshops, Group Discussion were done to identify market demand and need.

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

As mentioned, initially 70 job roles were identified but only 25 job roles finally identified to avoid overlapping. Job roles were approved on the basis of career progression of an Individual.

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?

- Detail Sustainability Plan available

Please attach any documents giving further information about any of the topics above. Give details of the document(s) here:

SECTION 3

SUMMARY EVIDENCE OF LEVEL

Level of qualification: -3

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
Job holder performs works which requires skills developed from working experience and learning. Job holder is expected taking out readings of water meters installed in housing, commercial and institutional setups, identify any fault in the meter system. It is also expected from the job holder to collect samples of water / waste water at source, treatment plant and delivery zones	Job holder is expected to have knowledge related to Inspection of water meters and assistance in water quality checks It is expected from the job holder to know general procedures and protocols related to meter reading, sample collection and reporting, procedure for transfer of sample and its storage, health and safety precautions	Job holder is expected to demonstrate skills for take correct readings, maintain log of databases and reports, It is also expected from the job holder to know different types of water meters and calibration used, characteristics of faulty meter, procedure for water / waste water sample collection, equipments used in sample collection and storage, procedure for transfer of	The workman at this level (i.e. 3), is expected to prepare data and log reports, co-ordinate with co-workers and sub-ordinates, share work load as required. Further it is expected to effectively communicate the danger and keep the work environment safe and clean. Example Inspection of water meters and assistance in water quality checks Hence can be placed at level-3	The job holder is working under supervision and will be responsible for work within their defined job roles under their teams like for taking meter readings correctly, performing timely inspection of water meters, distinguishing domestic water meters from commercial and institutional water meters, identifying whether the meter is running correctly or not, taking pictures of the readings, maintain log of water meter readings.	3

Considering above said points ore, it is justified to keep job holder at level 3	that need to be followed it is justified to keep job holder at level 3	sample and its storage, health and safety precautions that need to be followed therefore Job holder is kept at Level 3		He/she is also responsible for developing and determining methods and procedures for sample collection, undertaking health and safety precautions while collecting samples, clean work area and/or laboratory equipment in order to maintain hygiene, maintaining log of sample collections under the supervision of the seniors hence can be placed at level 3	
Level 3	Level 3	Level 3	Level 3	Level 3	

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?

Horizontal and vertical mobility options have been articulated.

Please attach any documents giving further information about any of the topics above.
Give details of the document(s) here:

ANNEXURE -II

