

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR PLUMBING

What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding



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Introduction

Qualifications Pack – Plumber (Maintenance & Servicing)

SECTOR: PLUMBING INDUSTRY

SUB-SECTOR:Contractors

OCCUPATION: Plumbing

REFERENCE ID: PSC/Q0112

ALIGNED TO: NCO-2004/7136.90

Plumber (Maintenance & Servicing): Plumber (Maintenance & Servicing) is an important job role in assistance in service and maintenance of plumbing fittings and fixtures in 'contractors' segment.

Brief Job Description: A Plumber (Maintenance & Servicing) is responsible for assistance in maintenance and servicing of pipes and sanitary fixtures in housing, commercial and institutional setups.

Personal Attributes: He should be comfortable in performing laborious work. He should be a good listener. He should be good at taking and following instructions. He should be a good team player. He should be result oriented and positive in attitude.

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Job Details	Qualifications Pack Code	PSC/Q0112		
	Job Role	Plumber (Maintenance & Servicing)		
	Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
	Sector	Plumbing	Drafted on	15/07/13
	Sub-sector	Contractors	Last reviewed on	30/07/13
	Occupation	Plumbing	Next review date	31/01/14

Job Role	Plumber (Maintenance & Servicing)
Role Description	Responsible for assistance in maintenance and servicing of pipes and sanitary fixtures in housing, commercial and institutional setups.
NVEQF/NVQF level	3
Minimum Educational Qualifications*	8 th (To be revised to 10 th post 31 st December, 2017)
Maximum Educational Qualifications*	N.A.
Training (Suggested but not mandatory)	On-the-job training.
Experience	Responsible for repair and maintenance and servicing of pipes and sanitary fixtures in housing, commercial and institutional setups.
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> 1. PSC/ N 0112 (Maintenance and servicing of plumbing systems) 2. PSC/ N 0108 (Coordinating with senior and other working team) 3. PSC/ N 0109 (Maintain a healthy, safe and secure working environment) <p>Optional:</p> <ol style="list-style-type: none"> 4. N.A.
Performance Criteria	As described in the relevant OS units

Definitions

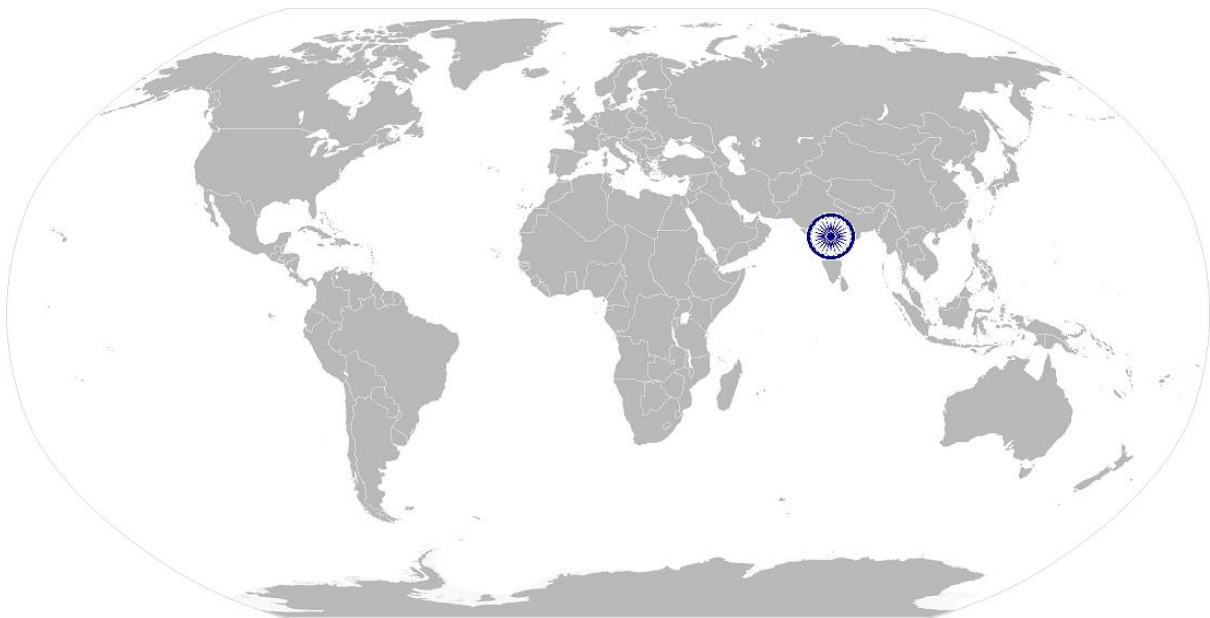
Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
OS	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard , which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.

Acronyms	Keywords /Terms	Description
	IPSC	Indian Plumbing Skills council
	NOS	National Occupational Standards
	NSQF	National Skills Qualification Framework
	NVEQF	National Vocational Educational Qualification Framework
	NVQF	National Vocational Qualification Framework
	OS	Occupational Standards
	PC	Performance Criteria
	QP	Qualification Pack
SSC	Sector Skills Council	



PSC/N0112 Maintenance and servicing of plumbing systems

National Occupational Standard



Overview

This unit is about maintenance and servicing of plumbing systems in housing, commercial and institutional setups.



PSC/N0112 Maintenance and servicing of plumbing systems

National Occupational Standard

Unit Code	PSC/N0112
Unit Title (Task)	Maintenance and servicing of plumbing systems
Description	This OS unit is about maintenance and servicing of plumbing systems in housing, commercial and institutional setups
Scope	<p>This unit/task covers the following:</p> <p>Maintenance and Servicing</p> <ul style="list-style-type: none"> It covers diagnose problems and/or failures in plumbing system for the purpose of identifying activities necessary to maintain the system It covers promptly addressing a snag in the plumbing systems
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Maintenance and Servicing	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. understand the installed system</p> <p>PC2. diagnose problems and/or failures in plumbing system for the purpose of identifying activities necessary to maintain the system</p> <p>PC3. clear the work area and waste disposal</p> <p>PC4. respond to emergency situations for the purpose of resolving immediate safety concerns</p>
Quality of output	<p>PC5. deliver the task in time</p> <p>PC6. ensure minimal wastage of material</p> <p>PC7. ensure minimal damage to other systems</p>
Knowledge and Understanding (K)	
A. Organizational Context	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policies on: quality and delivery standards, safety and hazards, integrity, dress code, etc.</p> <p>KA2. risk and impact of not following defined procedures/work instructions</p> <p>KA3. how to handover/ takeover of the equipment / work area as per the instructions</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different types of materials (CI/GI/PVC pipes, etc.), basic sanitary fittings (valves, clamps, elbows, etc.) and fixtures (showers, taps, basins, etc.)</p> <p>KB2. various types of defects such as leakages, improper alignment, etc.</p> <p>KB3. basic plumbing terminology</p> <p>KB4. relevant hand and power tools such as wrenches, pliers, screwdriver, power drill, pipe cutter, crimping tool, pipe bender, threading tool, hacksaw, metal</p>



PSC/N0112 Maintenance and servicing of plumbing systems

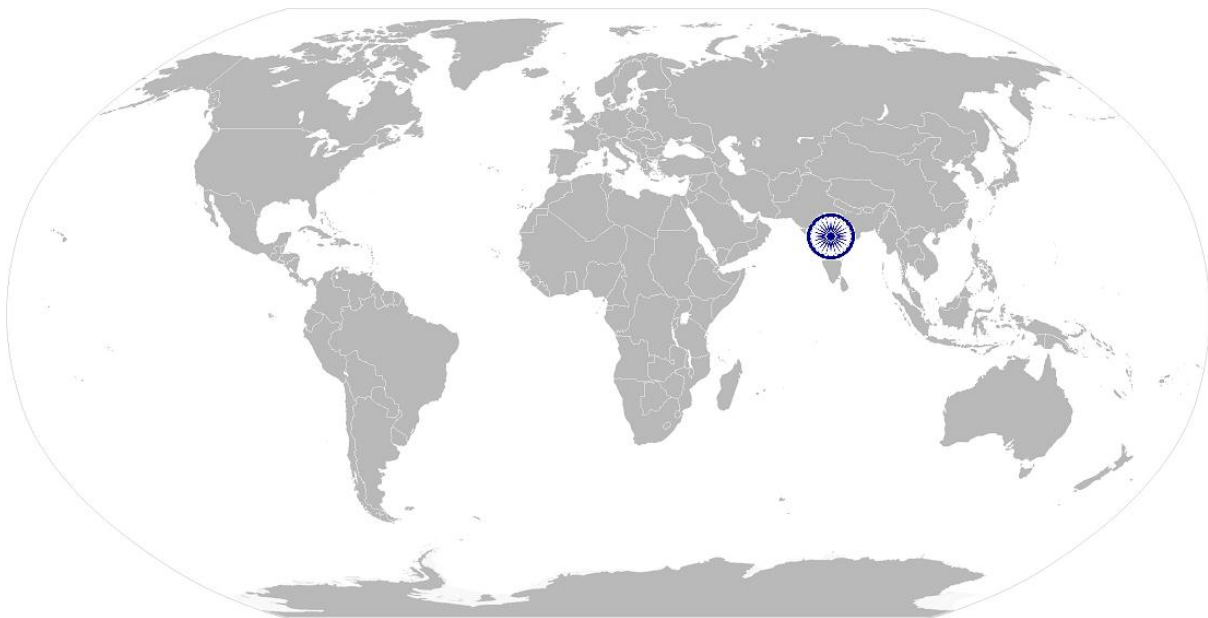
	<p>file, etc.</p> <p>KB5. units of measurement</p> <p>KB6. material disposal procedure, importance of appropriate disposal of material</p>
Skills (S)	
A. Core Skills/ Generic Skills	Communication skills
	The user/individual on the job needs to know and understand how to:
	SA1. communicate in Hindi / regional language
	Teamwork
	<p>SA2. share work load as required</p> <p>SA3. accept and interpret instructions and requirements correctly</p> <p>SA4. co-ordinate with co-workers and sub-ordinates</p>
B. Professional Skills	Use of tools and machines
	The user/individual on the job needs to know and understand how to:
	SB1. use relevant tools, equipment and consumables for maintenance of piping fixtures and fittings
	SB2. operate, maintain and repair tools
	Maintenance and servicing techniques
	SB3. carry out diagnosis and identify faulty components in the system
	SB4. replace pipes and fixtures so as to rectify the system
SB5. stack and store materials and equipment appropriately at the task site	
SB6. test run of fittings and fixtures	
	Decision making
	SB7. when and how to respond to any emergency situations



PSC/N0112 Maintenance and servicing of plumbing systems

NOS Version Control

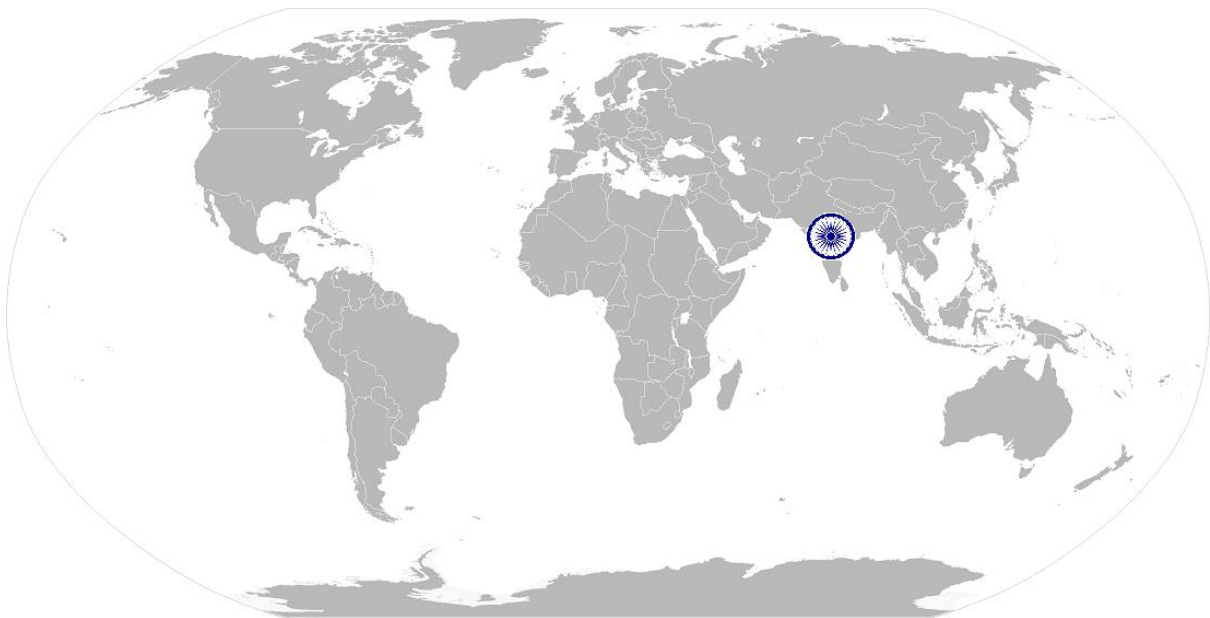
NOS Code	PSC /N0112		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
Industry	Plumbing	Drafted on	15/07/13
Industry Sub-sector	Contractors	Last reviewed on	30/07/13
		Next review date	31/01/14





PSC/N0108 Coordinating with the senior and other working team

National Occupational Standard



Overview

This unit is about team work and level of communication with colleagues or clients. It determines the ability to work as a team member, share work and multi-task in order to achieve the deliverables on schedule.



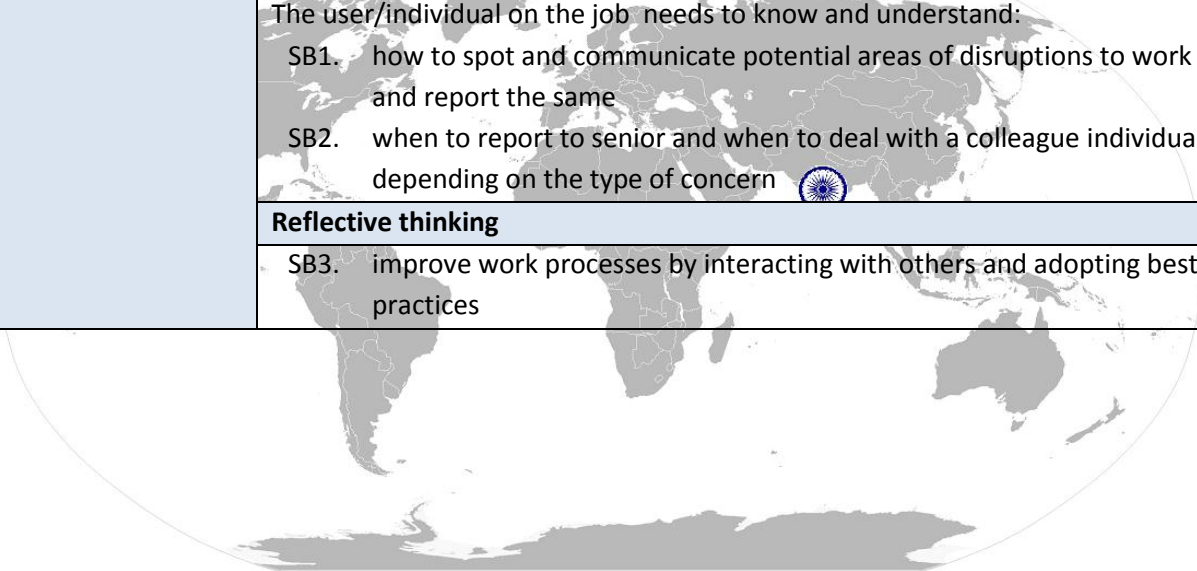
PSC/N0108 Coordinating with the senior and other working team

National Occupational Standard	Unit Code	PSC/N0108
	Unit Title (Task)	Coordinating with the senior and other working team
	Description	This OS unit is about communicating with colleagues and seniors in order to achieve smooth and hazard free work flow
	Scope	<p>This unit/task covers the following:</p> <p>Interact with senior</p> <ul style="list-style-type: none"> • receive work instructions, discuss task status and receive feedback <p>Interact with colleagues within and outside the team</p> <ul style="list-style-type: none"> • communicate and discuss work flow, problems faced, possible solutions and pass on the learning within and outside the team
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Interaction with senior	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. receive work instructions and raw materials from reporting senior</p> <p>PC2. communicate to reporting senior about task status, repairs and maintenance of tools and equipment as required</p> <p>PC3. communicate any potential hazards and expected process disruptions</p> <p>PC4. handover completed task to reporting senior</p> <p>PC5. receive feedback from reporting senior</p> <p>PC6. report any anticipated reasons for delays</p>
	Interact with colleagues within and outside the team	<p>PC7. work as a team with colleagues and share work as per the work load and skills</p> <p>PC8. work with colleagues of other teams</p> <p>PC9. communicate and discuss work flow related difficulties in order to find solution with mutual agreement</p> <p>PC10. taking instructions from the reporting senior</p> <p>PC11. report problem/incident etc.</p> <p>PC12. put team over individual goals</p> <p>PC13. resolve conflicts</p>
	Knowledge and Understanding (K)	
	A. Organizational Context	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policies on: preferred language of communication, quality delivery standards and personnel management</p> <p>KA2. reporting structure</p>



PSC/N0108 Coordinating with the senior and other working team

B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. effective ways of communication KB2. building team co-ordination
Skills (S)	
A. Core Skills/ Generic Skills	Communication skills
	The user/individual on the job needs to know and understand how to: SA1. communicate in Hindi / regional language
	Teamwork
	SA2. share work load as required SA3. accept and interpret instructions and requirements correctly SA4. co-ordinate with co-workers and sub-ordinates
B. Professional Skills	Decision making
	The user/individual on the job needs to know and understand: SB1. how to spot and communicate potential areas of disruptions to work process and report the same SB2. when to report to senior and when to deal with a colleague individually, depending on the type of concern
	Reflective thinking
	SB3. improve work processes by interacting with others and adopting best practices

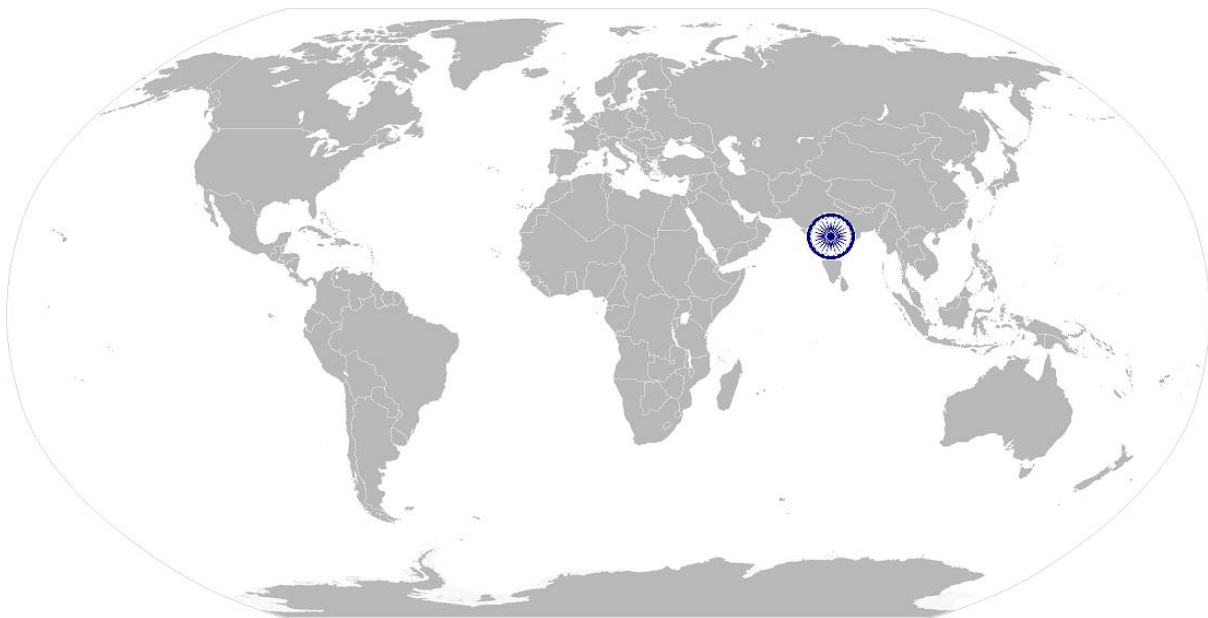




PSC/N0108 Coordinating with the senior and other working team

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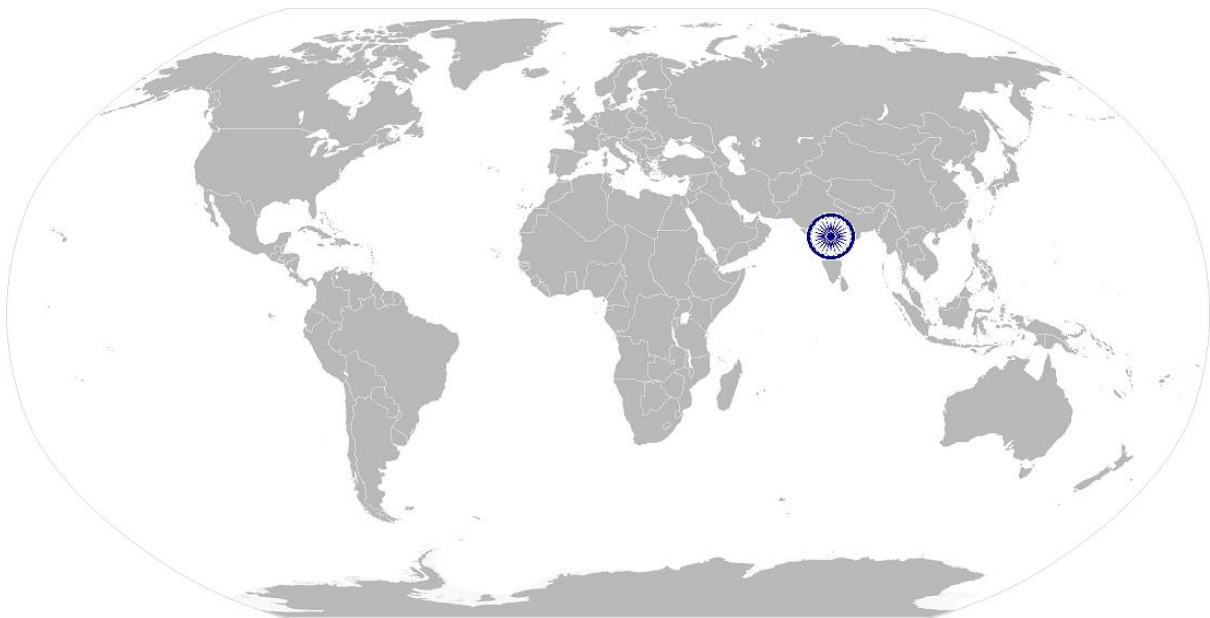
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Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
Industry	Plumbing	Drafted on	15/07/13
Industry Sub-sector	Contractors	Last reviewed on	30/07/13
		Next review date	31/01/14





PSC/N0109 Maintain a healthy, safe and secure working environment

National Occupational Standard



Overview

This unit is about being aware of, communicating and taking steps towards minimizing potential hazards and dangers of accidents on the job and maintaining occupational health and safety.



PSC/N0109 Maintain a healthy, safe and secure working environment

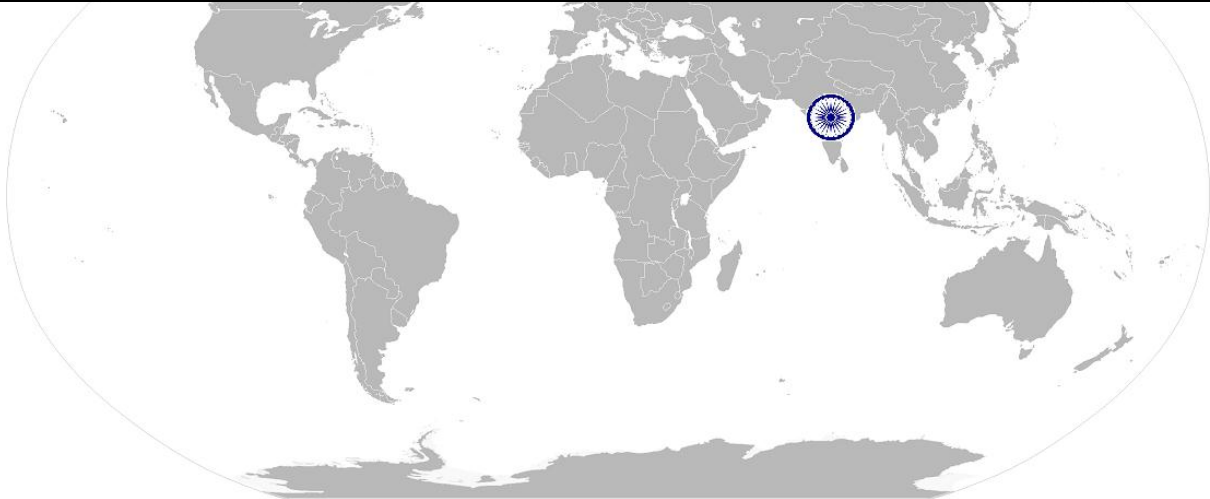
National Occupational Standard

Unit Code	PSC/N0109
Unit Title (Task)	Maintain a healthy, safe and secure working environment
Description	This OS unit is about monitoring your working environment and making sure it meets requirements for health and safety
Scope	<p>This unit/task covers the following:</p> <p>Communicate to reporting senior about</p> <ul style="list-style-type: none"> • process flow improvements that can reduce anticipated or repetitive hazards • mishandling of tools and equipment • electrical or any other problem at the construction site that could result in accident
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Communicating potential accident points	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. to avoid accidents related to use of sharp tools and equipment</p> <p>PC2. attend and actively participate in the health and safety campaigns organized by the company or any other authority</p>
Using safety gear and following healthy practices	<p>PC3. use or wear safety gear (helmet, gloves, goggles, safety shoes, ear plugs, etc.) as per the rules of the company</p> <p>PC4. attend fire drills or any other safety drills organized by the company or any other authority</p> <p>PC5. learn first-aid procedure</p> <p>PC6. use insect repellents and safe drinking water</p> <p>PC7. use site toilets and follow other hygienic practices</p> <p>PC8. understand the evacuation and emergency procedures</p>
Knowledge and Understanding (K)	
A. Organizational Context	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policy on: safety and hazards and personnel management</p> <p>KA2. reporting structure</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to use tools and equipment without suffering any physical harm</p> <p>KB2. first-aid procedure</p> <p>KB3. diseases caused due use of unsafe water, biting of insects and following unhygienic practices</p> <p>KB4. evacuation and emergency procedures</p>



PSC/N0109 Maintain a healthy, safe and secure working environment

Skills (S)	
A. Core Skills/ Generic Skills	Communication skills
	The user/individual on the job needs to know and understand how to: SA1. effectively communicate the danger
	Organising skills
	SA2. keep all the tools in an organised manner so as to avoid accidents SA3. keep the work environment safe and clean
B. Professional Skills	Decision making
	The user/individual on the job needs to know and understand how to: SB1. report potential sources of danger SB2. follow prescribed procedure in the event of an accident SB3. wear appropriate safety gear to avoid an accident
	Reflective thinking
	SB4. learn from past mistakes regarding use of hazardous tools and equipment

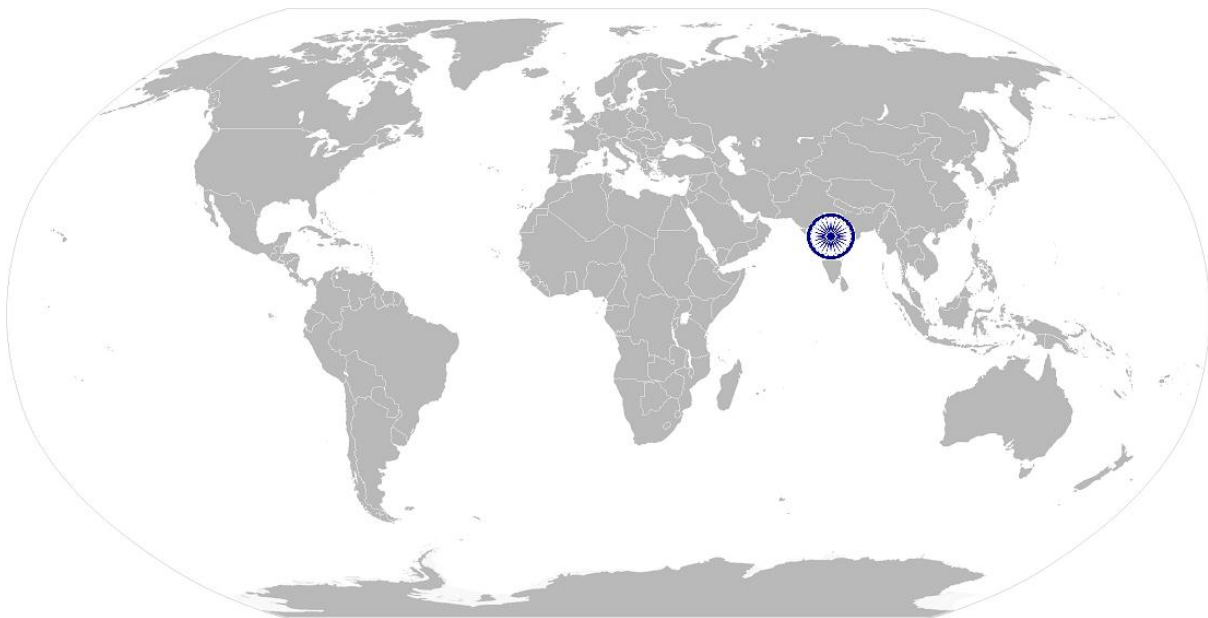




PSC/N0109 Maintain a healthy, safe and secure working environment

NOS Version Control

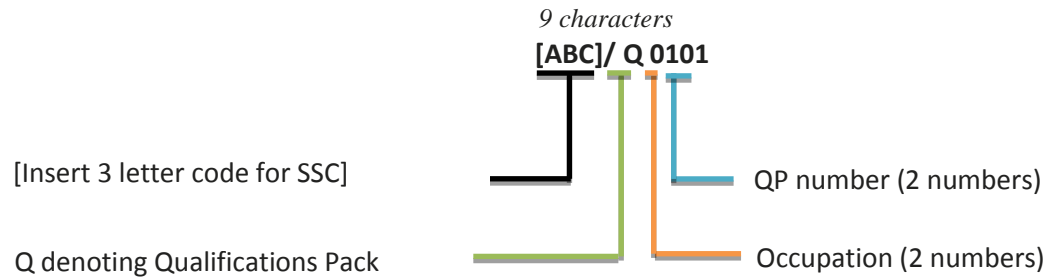
NOS Code	PSC /N0109		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
Industry	Plumbing	Drafted on	15/07/13
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Annexure

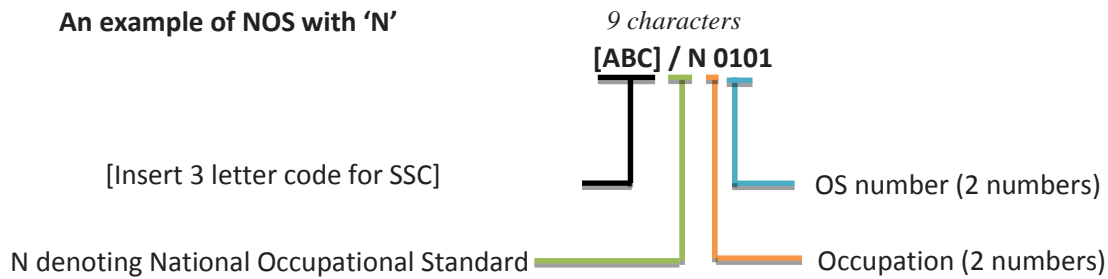
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Contractors	01-10
Consultants	11-20
Manufacturers	21-30

Sequence	Description	Example
Three letters	Industry name	PSC
Slash	/	/
Next letter	Whether QP or NOS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01