

# QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR POWER SECTOR

## What are Occupational Standards(OS)?

Ø OS describe what individuals need to do, know and understand in order to carry out a particular job role or function

Ø 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- Cable Jointer Electrical Power System

SECTOR: Power  
 SUB-SECTOR: Distribution  
 OCCUPATION: Cable Jointer Electrical Power System  
 REFERENCE ID: PSS/Q1002  
 ALIGNED TO: NCO-2004/NIL

Cable Jointer Electrical Power System is responsible for underground cables joint and repair, also prepares overhead cable terminations. Cable jointer works on cable jointing and connects them to the power transmission and distribution systems. They also run tests to check the cabling system performance and locate faults, making any necessary repairs.

**Brief Job Description:** Cable jointer works on joints of low voltage (LV) and high voltage cables (11kV) with the circuits dead and earthed locally at both ends of cables. He also needs to locate cable faults.

**Personal Attributes:** Physically and mentally able to safely perform essential functions of the job. The candidate should be able to climb ladders, scaffolds, poles and towers of various heights. Also able to crawl and work in confined spaces such as attics, manholes and crawlspaces. The candidate should be able to read, hear and understand instructions and warnings.



Job Details

Qualifications Pack Code	PSS/Q1002		
Job Role	Cable Jointer Electrical Power System		
Credits (NSQF)	TBD	Version number	1.0
Sector	Power	Drafted on	20/01/2016
Sub-sector	Distribution	Last reviewed on	19/07/2016
Occupation	Cable Jointer	Next review date	19/07/2018
NSQC Clearance Date	Not Applicable		

Job Role	Cable Jointer Electrical Power System
Role Description	Cable Jointer Electrical Power System joints low voltage cables and high voltage cables up to 11kV either with the circuit dead or energized on one or both ends
NSQF level	4
Minimum Educational Qualifications	8 <sup>th</sup> pass
Maximum Educational Qualifications	Not Applicable
Training (Suggested but not mandatory)	Welding training
Minimum Job Entry Age	20 years
Experience	6 months as a welder (preferable but not mandatory)
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> <li><a href="#">PSS/N1002 Installing, repairing and jointing cables</a></li> <li><a href="#">PSS/N2001 Use basic health and safety practices at the workplace</a></li> <li><a href="#">PSS/N1336 Work effectively with others</a></li> </ol> Optional: Not Applicable
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.
	Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
	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.
	Sub-functions	Sub-functions are sub-activities essential achieving the objectives of the function.
	Job role	Job role defines unique set of functions that together form a unique employment opportunity in an organization.
	Occupational Standards (OS)	OS specify the standards of performance an individual must achieve consistently while carrying out a function at the workplace. Occupational Standards as a set of competencies is applicable both in Indian and overreaching global contexts.
	Performance Criteria	Performance Criteria defined for a task are statements that together specify the standard of performance while carrying out the task.
	National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in Indian context.
	Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
	Qualifications Pack(QP)	Qualifications Pack comprises set of OS, together with the educational, training and other criteria that are required to perform a job role satisfactorily at workplace. A Qualifications Pack is assigned a unique qualification pack code for clear identification.
	Knowledge and Understanding	Knowledge and Understanding are statements which together as a set specify the technical, generic, professional and organization specific knowledge that an individual needs to possess in order to perform and meet the required standards consistently.
	Organizational Context	Organizational Context includes the way the organization is structured and how it operates. It includes elements of operational knowledge contents defined in relation to functioning of an organization that a skilled professional need to possess specific to its precise areas of responsibility.



Acronyms

Technical Knowledge	Technical Knowledge is the specific domain knowledge needed to accomplish the task in combination with other competencies. It is usually coined with specifically designated roles and responsibilities.
Core Skills/Generic Skills	Core Skills or Generic Skills as set are group of skills. It is key to working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include mainly communication related skills that are applicable to most job roles.
Keywords /Terms	Description
A.C	Alternating Current
D.C	Direct Current
HT	High Tension
LT	Low Tension
HV	High Voltage
LV	Low Voltage
KV	Kilovolt
kwh	kilowatt hour
kw	Kilowatt
KvA	Kilo Volt Ampere
MW	Mega Watt
MWh	Mega Watt hour
O/C	Over Current
O/H	Over Head
O&M	Operation & Maintenance
OPGW	Optical Ground Wire
PT	Potential Transformer
RMU	Ring Main Unit
SCADA	Supervisory Control and Data Acquisition
SEB	State Electricity Board
SERC	State Electricity Regulatory Commission
SMS	Short Message Service
T&D	Transmission and Distribution
T/F	Transformer
VT	Voltage Transformer
XLPE	Cross Linked Poly Ethylene Cable



NOS

National Occupational Standards

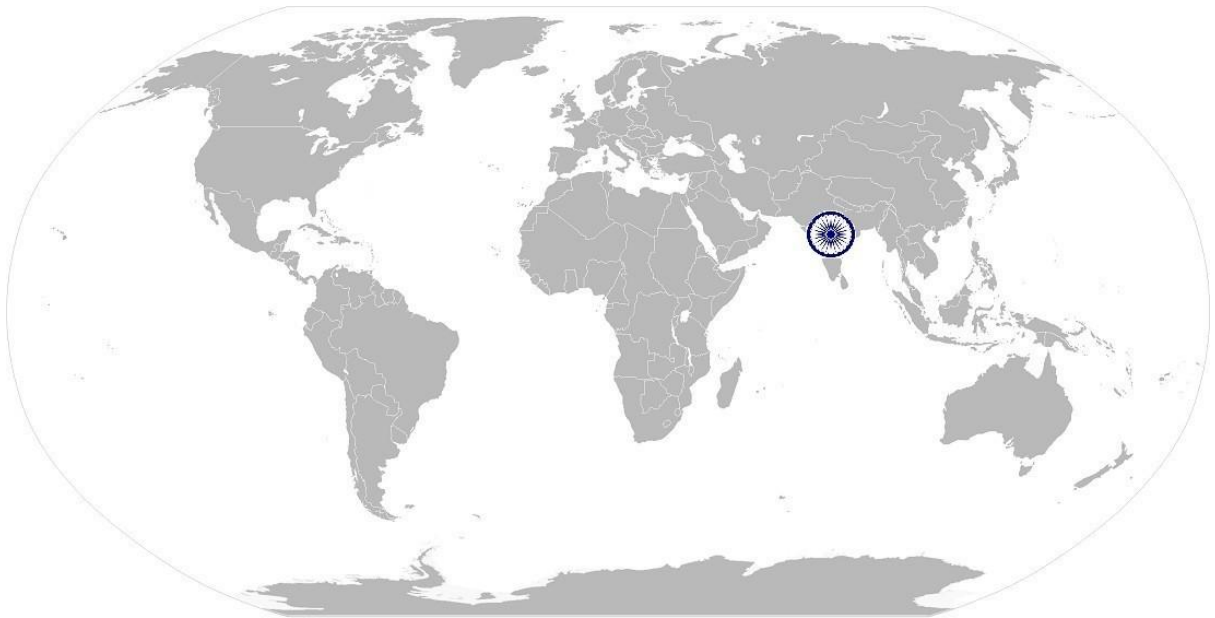


PSS/N1002

Installing, repairing and jointing cables

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# National Occupational Standard



## Overview

This unit covers the LT and HV (11kV) jointing activities of cable jointer.



PSS/N1002

Installing, repairing and jointing cables

National Occupational Standard	Unit Code	PSS/N1002
	Unit Title (Task)	Installing, repairing and jointing cables
	Description	This unit covers low voltage (LV) and high voltage (upto 11kV) underground and Aerial Bunched (AB) cables. This includes handling of tools and equipment for jointing and carrying out necessary tasks in a safe, efficient and effective manner
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> <li>• handling tools and equipment</li> <li>• cable jointing</li> </ul>
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Handling tools and equipment	The user/individual on the job needs to: <ul style="list-style-type: none"> <li>PC1. prepare and maintain the work area as per procedure or operation specification</li> <li>PC2. identify accurately and acquire correct tools, equipment and instruments required for various aspects</li> <li>PC3. use tools- hacksaw, chisel, measuring tape, blow lamp, file-rectangular or half round, mallet, crimping machine – manual and hydraulic</li> </ul>
	Cable jointing	The user/individual on the job needs to: <ul style="list-style-type: none"> <li>PC4. identify and know the application of the different types of cables used in different power equipment's</li> <li>PC5. use various cable jointing technology</li> <li>PC6. use different types of cable jointing methods</li> <li>PC7. use different types of cables jointing accessories, systems and processes</li> <li>PC8. prepare cable for jointing by identifying, isolation, grounding, digging of jointing pit and also doing initial testing of cables</li> <li>PC9. carry out jointing activities like measuring, peeling of cable insulation, ferrule punching and socket punching in case of cable termination joint</li> <li>PC10. insulate cable joints and terminations as per specifications and code of practice</li> <li>PC11. ensure continuity of cables</li> <li>PC12. ensure clamping of cables and tightening</li> <li>PC13. ensure proper earthing of cable armor</li> <li>PC14. apply live work procedures and skills for Tee and Straight LV joints and terminations</li> <li>PC15. deal promptly and effectively with problems within scope of control</li> <li>PC16. leave the work area in a safe and tidy condition always</li> </ul>
	Knowledge and Understanding (K)	





PSS/N1002

### Installing, repairing and jointing cables

<p>A. Organizational Context</p>	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"><li>KA1. relevant legislation, standards, policies, and procedures followed in the organization relevant to own employment and performance conditions</li><li>KA2. health and safety requirements applicable in the work place</li><li>KA3. roles and responsibilities, sources for information pertaining to employment terms and entitlement for self</li><li>KA4. reporting structure, inter-dependent functions, lines and procedures in the work area</li><li>KA5. how to engage with specialists for support in order to resolve incidents</li><li>KA6. importance of working in clean and safe environment</li><li>KA7. relevant people and their responsibilities within the work area</li><li>KA8. escalation matrix and procedures for reporting</li></ul>
<p>B. Technical Knowledge</p>	<p>The individual on the job needs to know and understand:</p> <ul style="list-style-type: none"><li>KB1. relevant terminology like current, voltage, resistance, inductance, capacitance, kilovolt ampere (kvA), kilowatt (kw), active power, kilowatt hour(kwh)</li><li>KB2. type of cable on the basis of different power equipment's, like conductor, insulator and their application</li><li>KB3. cable jointing technologies-like, Epoxy joint (Cast Resins), Heat shrinks joint, AB cable jointing etc.</li><li>KB4. types of cable joints and relevant usage like termination, straight through, indoor, outdoor etc.</li><li>KB5. process and procedure of cable identification, isolation, grounding, digging of jointing pit and initial testing of cable</li><li>KB6. jointing process and procedures</li><li>KB7. use of different tools like gas cylinder, blower, clamping tools, cable jointing kit etc.</li><li>KB8. different cable sizes, their ratings, bending radii, direct laying and draw in systems</li><li>KB9. need for authorization and permit to work in substation and control room</li><li>KB10. need to have permit to work from municipality/corporation</li></ul>



PSS/N1002

Installing, repairing and jointing cables

Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. communicate effectively in writing SA2. able to write the information communicated SA3. write properly about the technical problems and other conditions of site SA4. note down testing repair observations, critical points SA5. prepare and fill up all technical forms and data as per guidelines and format
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA6. read and have understanding of written sentences and paragraphs SA7. read metric system for all measurements SA8. interpret the process required for performing work SA9. read, interpret and understand the rules and methods
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA10. effectively communicate orally SA11. communicate effectively with voice modulation, tone of voice and eye contact SA12. use good body language for good oral communication SA13. discuss task lists, schedules and activities with electrician SA14. effectively communicate with the team/group members SA15. listen the information given by electrician
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. make appropriate judgments and decisions SB2. identify complex problems and review related information to develop and evaluate SB3. follow organization rule based decision making process SB4. take decision with systematic course of actions and/or response
	Plan and Organize
	The user/individual on the job needs to know and understand: SB5. planning and organization of tasks to meet deadlines
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB6. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB7. identify problems and review related information to develop and evaluate options and implement solutions SB8. prioritize and plan for solving problem SB9. monitor problem solving to take corrective action with individuals and organizations





PSS/N1002

### Installing, repairing and jointing cables

	SB10. analyze problems and changes in conditions, operations, and the environment to solve problems
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB11. analyze the problem seen in the equipment SB12. collect the information and technical data and define process for doing testing and maintenance
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB13. critically evaluate operation parameters in relation to product features intended SB14. develop holistic and comprehensive profile of products based on segregated discrete process stages

### NOS Version Control

NOS Code	PSS/N1002		
Credits (NSQF)	TBD	Version number	1.0
Industry	Power	Drafted on	20/01/2016
Industry Sub-sector	Distribution	Last reviewed on	19/07/2016
Occupation	Cable Jointer	Next review date	19/07/2018

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**NOS**  
National Occupational Standards

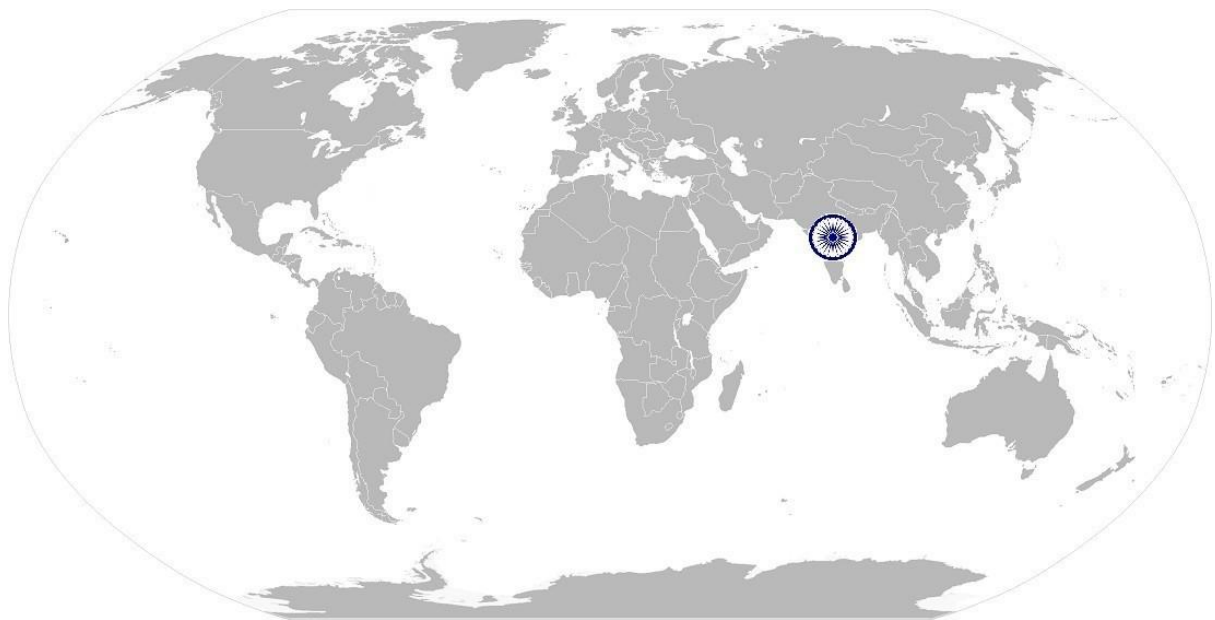


PSS/N2001

Use basic health and safety practices for power related work

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# National Occupational Standard



## Overview

This unit covers health, safety and security for power related work. This includes procedures and practices that candidates need to follow to help maintain a healthy, safe and secure work environment.



NOS

National Occupational Standards



PSS/N2001 Use basic health and safety practices for power related work

National Occupational Standard

Unit Code	PSS/N2001
Unit Title (Task)	Use basic health and safety practices for power related work
Description	This unit covers health, safety and security for power related work. This includes procedures and practices that candidates need to follow to help maintain a healthy, safe and secure work environment. It covers responsibilities towards self, others, assets and the environment. .
Scope	This unit/task covers the following: <ul style="list-style-type: none"> <li>• health and safety</li> <li>• fire safety</li> <li>• emergencies, rescue and first-aid procedures</li> </ul>
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Health and safety	<p>The user/individual on the job needs to:</p> <p>PC1. use protective clothing/equipment for specific tasks and work conditions.</p> <p>PC2. state the name and location of people responsible for health and safety in the workplace</p> <p>PC3. state the names and location of documents that refer to health and safety in the workplace</p> <p>PC4. identify job-site hazardous work and state possible causes of risk or accident in the workplace</p> <p>PC5. follow electrical safe working procedures such as Tag out/Lock out and display PTW (Permit To Work),</p> <p>PC6. follow warning signs (danger, out of service, etc.) while working with electrical systems</p> <p>PC7. use standard safe working practices when working at heights, confined areas and trenches</p> <p>PC8. test any electrical equipment and system using insulated testing devices before touching them</p> <p>PC9. ensure positive isolation of electrical equipment &amp; system as per given standards</p> <p>PC10. recognize any abnormalities in electrical equipment or system installed alarm annunciation and/or noticing parameters from gauge/ indicator installed</p> <p>PC11. carry out safe working practices while dealing with hazards to ensure the safety of self and others</p> <p>PC12. state methods of accident prevention in the work environment of the job role</p> <p>PC13. state location of general health and safety equipment in the workplace</p> <p>PC14. inspect for faults, set up and safely use of scaffolds and elevated platforms and ladder</p> <p>PC15. lift, carry and transport heavy objects &amp; tools safely using correct procedures from storage to workplace and vice versa</p> <p>PC16. inspect Grid station and its equipment routinely for any signs of oil and water leakage</p> <p>PC17. store flammable materials and machine lubricating oil safely and correctly</p>



PSS/N2001      Use basic health and safety practices for power related work

	<p>PC18. check that the emission and pollution control devices are working properly in line with environmental policy standards</p> <p>PC19. apply good housekeeping practices at all times</p> <p>PC20. identify common hazard signs displayed in various areas</p> <p>PC21. retrieve and/or point out documents that refer to health and safety in the workplace</p> <p>PC22. inform relevant authorities about any abnormal situation/behavior of any equipment/system promptly</p>
Fire safety	<p>The user/individual on the job needs to:</p> <p>PC23. use the various appropriate fire extinguishers on different types of fires correctly</p> <p>PC24. distinguish types of fire</p> <p>PC25. demonstrate rescue techniques applied during fire hazard</p> <p>PC26. demonstrate good housekeeping in order to prevent fire hazards</p> <p>PC27. demonstrate the correct use of a fire extinguisher</p>
Emergencies, rescue and first-aid procedures	<p>The user/individual on the job needs to:</p> <p>PC28. demonstrate how to free a person from electrocution</p> <p>PC29. administer appropriate first aid to victims where required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc.</p> <p>PC30. demonstrate basic techniques of bandaging</p> <p>PC31. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments</p> <p>PC32. perform and organize loss minimization or rescue activity during an accident in real or simulated environments</p> <p>PC33. administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases</p> <p>PC34. demonstrate the artificial respiration and the CPR Process</p> <p>PC35. participate in emergency procedures Emergency procedures: raising alarm, safe/efficient, evacuation, correct means of escape, correct assembly point, roll call, correct return to work</p> <p>PC36. complete a written accident/incident report or dictate a report to another person, and send report to person responsible</p> <p>PC37. demonstrate correct method to move injured people and others during an emergency</p>
<b>Knowledge and Understanding (K)</b>	
A. Organizational Context	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. names (and job titles if applicable), and where to find, all the people responsible for health and safety in a workplace</p> <p>KA2. names and location of documents that refer to health and safety in the workplace</p>

PSS/N2001 Use basic health and safety practices for power related work

<p><b>B. Technical Knowledge</b></p>	<p>The individual on the job needs to know and understand:</p> <p>KB1. meaning of “hazards” and “risks”</p> <p>KB2. health and safety hazards commonly present in the work environment and related precautions</p> <p>KB3. possible causes of risk, hazard or accident in the workplace and why risk and/or accidents are possible</p> <p>KB4. possible causes of risk and accident</p> <p>KB5. methods of accident prevention</p> <p>KB6. safe working practices when working with tools and machines</p> <p>KB7. safe working practices while working at various hazardous sites</p> <p>KB8. where to find all the general health and safety equipment in the workplace</p> <p>KB9. various dangers associated with the use of electrical equipment</p> <p>KB10. positive isolation of electrical equipment and system</p> <p>KB11. safe handling and disposal of hazardous power plant wastes</p> <p>KB12. use of emission and pollution control devices and measures taken to control pollution</p> <p>KB13. various safety procedures and equipment used to work at heights, trenches and confined places</p> <p>KB14. safe working practices specific to working with electrical equipment &amp; system e.g. lock out/ tag out, PTW, etc.</p> <p>KB15. preventative and remedial actions to be taken in the case of exposure to toxic materials</p> <p>KB16. importance of using protective clothing/equipment and other insulated work gear while handling electrical system and equipment</p> <p>KB17. precautionary activities taken to prevent fire accident</p> <p>KB18. various causes of fire</p> <p>KB19. techniques of using the different fire extinguishers</p> <p>KB20. different methods of extinguishing fire</p> <p>KB21. different materials used for extinguishing fire</p> <p>KB22. emergency rescue techniques applied during a fire hazard</p> <p>KB23. various types of safety signs and what they mean</p> <p>KB24. appropriate basic first aid treatment relevant to the condition e.g. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries</p>
<p><b>Skills (S)</b></p>	
<p><b>A. Core Skills/ Generic Skills</b></p>	<p><b>Writing Skills</b></p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. note the information communicated by the officer incharge</p> <p>SA2. note down observations (if any) related to the operation/maintenance</p> <p><b>Reading Skills</b></p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. read and interpret the process required for different types of manuals for maintenance</p> <p>SA4. read and interpret the flowchart of all parts of an assembly</p>





PSS/N2001      Use basic health and safety practices for power related work

	SA5. read manuals and documents to understand the product-details & how they can be used
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists, schedules and activities with the colleague SA7. effectively communicate with the team members SA8. attentively listen and comprehend the information given by the colleague/contractor SA9. communicate clearly with the colleague on the issues faced during query/fault
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. follow colleague/contractor rule-based decision making process SB2. take decisions with systematic course of actions and/or response
	Plan and Organize
	The user/individual on the job needs to know and understand: SB3. planning and organization of tasks to meet deadlines
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB4. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB5. seek and comprehend operation related inputs for clarification SB6. find ways of modifying difficult operating stages to make it operation friendly
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB7. work systematically and logically to resolve the issues and identify causation and anticipate unexpected results SB8. quick approach and solution towards faults repairing
Critical Thinking	
The user/individual on the job needs to know and understand how to: SB9. critically evaluate operation parameters in relation to system normality SB10. develop a holistic and comprehensive profile of grid station on segregated discrete process stages	



# NOS

National Occupational Standards

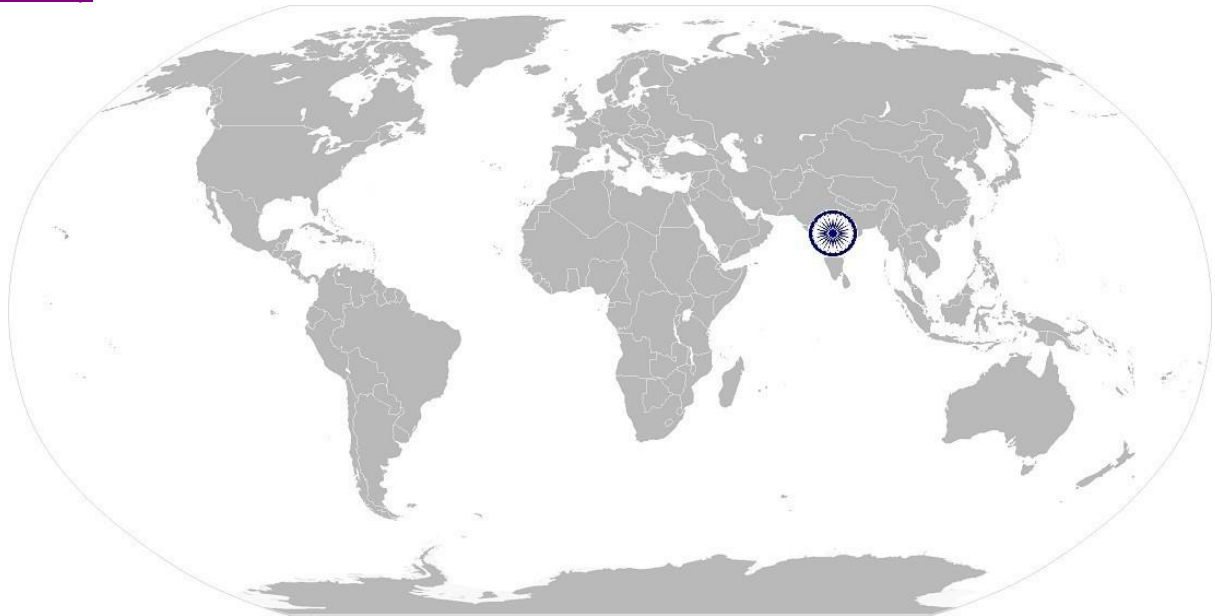


PSS/N2001 Use basic health and safety practices for power related work

## NOS Version Control

NOS Code	PSS/N2001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Power	Drafted on	04/06/2016
Industry Sub-sector	Generation, Transmission & Distribution	Last reviewed on	19/07/2016
Occupation	Technician	Next review date	19/07/2018

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NOS

National Occupational Standards

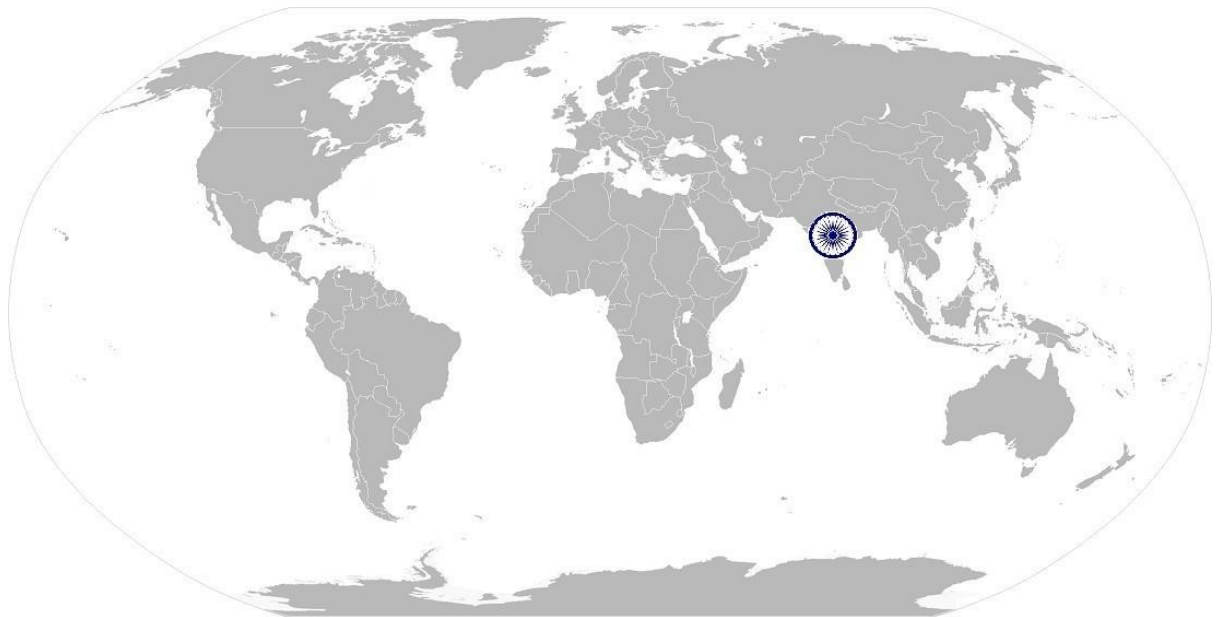


PSS/N1336

Work effectively with others

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# National Occupational Standard



## Overview

This unit covers basic practices that improve effectiveness of working with others in an organizational set-up



PSS/N1336

Work effectively with others

National Occupational Standard

Unit Code	PSS/N1336
Unit Title (Task)	Work effectively with others
Description	<p>This unit covers basic etiquette and competencies that a candidate is required to possess and demonstrate in their behavior and interactions with others at the workplace.</p> <p>These cover areas such as communication etiquette, discipline, listening, handling conflict and grievances.</p>
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>· working with others</li> </ul>
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Working with others	<p>The user/individual on the job should be able to:</p> <ul style="list-style-type: none"> <li>PC1. accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required</li> <li>PC2. accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt</li> <li>PC3. give information to others clearly at a pace and in a manner that helps them to understand</li> <li>PC4. display helpful behavior by performing tasks in a positive manner, where required and possible</li> <li>PC5. perform with others to maximize effectiveness and efficiency in carrying out tasks</li> <li>PC6. display appropriate communication etiquette while working</li> <li>PC7. display active listening skills while interacting with others at work</li> <li>PC8. use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism</li> <li>PC9. demonstrate responsible and disciplined behavior at the workplace</li> <li>PC10. escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict</li> </ul>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> <li>KA1. legislation, standards, policies, and procedures followed in the organisation relevant to own employment and performance conditions</li> <li>KA2. reporting structure, inter-dependent functions, lines and procedures in the work area</li> <li>KA3. relevant people and their responsibilities within the work area</li> <li>KA4. escalation matrix and procedures for reporting work and employment related issues</li> </ul>



PSS/N1336

Work effectively with others

B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. various categories of people that one is required to communicate and co-ordinate with in the organization</p> <p>KB2. importance of effective communication in the workplace</p> <p>KB3. importance of teamwork in organizational and individual success</p> <p>KB4. various components of effective communication</p> <p>KB5. key elements of active listening</p> <p>KB6. value and importance of active listening and assertive communication</p> <p>KB7. barriers to effective communication</p> <p>KB8. importance of tone and pitch in effective communication</p> <p>KB9. importance of avoiding casual expletives and unpleasant terms while communicating professional circles</p> <p>KB10. how poor communication practices can disturb people, environment and cause problems for the employee, the employer and the customer</p> <p>KB11. importance of ethics for professional success</p> <p>KB12. importance of discipline for professional success</p> <p>KB13. what constitutes disciplined behavior for a working professional</p> <p>KB14. common reasons for interpersonal conflict</p> <p>KB15. importance of developing effective working relationships for professional success</p> <p>KB16. how to express and address grievances appropriately and effectively</p> <p>KB17. importance and ways of managing interpersonal conflict effectively</p>
<b>Skills (S) (Optional)</b>	
A. Core Skills/ Generic Skills	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. note the information communicated by the officer incharge</p> <p>SA2. note down observations (if any) related to the operation/maintenance</p> <p>Reading Skills</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. read and interpret the process required for different types of manuals</p> <p>SA4. read and interpret the flowchart of all parts of an assembly</p> <p>SA5. read manuals and documents to understand the product-details &amp; how they can be used</p> <p>Oral Communication (Listening and Speaking skills)</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA6. discuss task lists, schedules and activities with the colleague effectively</p> <p>SA7. communicate with the team members</p> <p>SA7. attentively listen and comprehend the information given by the colleague/contractor</p> <p>SA8. communicate clearly with the colleague on the issues faced during query/fault</p>
	Decision Making





PSS/N1336

Work effectively with others

B. Professional Skills	The user/individual on the job needs to know and understand how to: SB11. follow colleague/contractor rule-based decision making process SB12. take decisions with systematic course of actions and/or response
	Plan and Organize
	The user/individual on the job needs to know and understand: SB13. planning and organization of tasks to meet deadlines
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB14. build customer relationships and use customer centric approach
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB15. seek and comprehend operation related inputs for clarification find ways of modifying difficult operating stages to make it operation friendly
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB16. work systematically and logically to resolve the issues and identify causation and anticipate unexpected results. Quick approach and solution towards faults repairing
	Critical Thinking
The user/individual on the job needs to know and understand how to: SB17. critically evaluate operation parameters in relation to system normality develop a holistic and comprehensive profile of grid station	

## NOS Version Control

NOS Code	PSS/N1336		
Credits (NSQF)	TBD	Version number	1.0
Industry	Power	Drafted on	04/06/2016
Industry Sub-sector	Generation, Transmission & Distribution	Last reviewed on	19/07/2016
Occupation	Technician	Next review date	19/07/2018

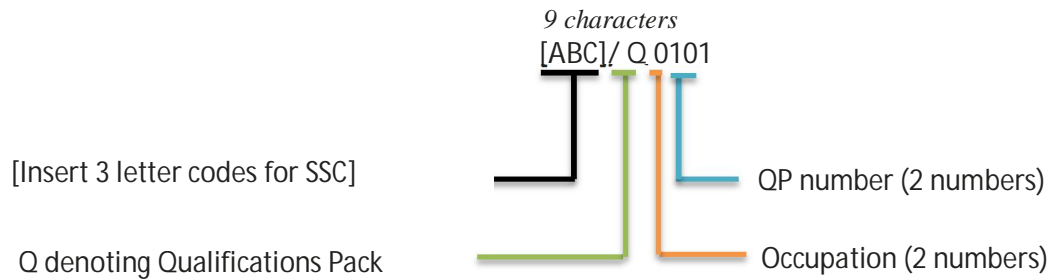
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## Annexure

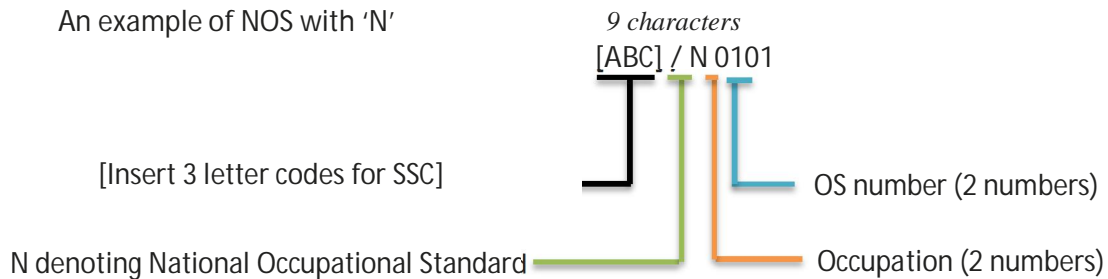
### Nomenclature for QP and NOS

#### 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
[ Insert Name of Sub-sector1, Font: Calibri (Body), size 11, Bold]	[Insert range]
[ Insert Name of Sub-sector2, Font: Calibri (Body), size 11, Bold]	[Insert range]
[ Insert Name of Sub-sector3, Font: Calibri (Body), size 11, Bold]	[Insert range]
[ Insert Name of Sub-sector4, Font: Calibri (Body), size 11, Bold]	[Insert range]
...	...

Sequence	Description	Example
Three letters	Industry name	[ABC, Font: Calibri (Body), size 11]
Slash	/	/
Next letter	Whether <b>QP</b> or <b>NOS</b>	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01



## CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Cable Jointer Electrical Power System

Qualification Pack PSS/Q1002

Sector Skill Council Power

### 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 Outcomes	Assessment Criteria	Total Marks	Out of	Theory	Skills Practical
1. PSS/ N 1002 Installing, repairing and jointing cables	PC1. prepare and maintain the work area as per procedure or operation specification	100	6	3	3
	PC2. identify accurately and acquire correct tools, equipment and instruments required for various aspects		6	2	4
	PC3. use tools- hacksaw, chisel , measuring tap, blow lamp, file- rectangular or half round, mallet, crimping machine –manual and hydraulic		6	1	5
	PC4. apply knowledge of type of cable on the basis of 1. Conductor 2. Insulator 3. Size and 4. Application		6	2	4
	PC5. apply knowledge of various cables jointing technology-1. Epoxy joint (Cast Resins) 2. Heat shrinks joint 3. AB cable jointing		6	2	4



PC6.	use types of cable joints on the basis of – Usage, Termination, straight through, indoor, outdoor etc.	6	1	5
PC7.	prepare different types of cables with different cable sheathing systems and accessories for the jointing process.	6	2	4
PC8.	apply knowledge of preparation of cable for jointing 1. Identification 2. Isolation 3. Grounding 4. Digging of jointing pit 5. initial testing of cable etc.	6	2	4
PC9.	carry out jointing activities- 1. Measuring 2. Peeling of cable Insulation 3. Ferrule punching and socket punching in case of cable termination joint etc.	6	1	5
PC10.	apply knowledge pertaining to joint process/procedures 1. Unpacking jointing kit 2. Counting and identification of each material of jointing kit 3. Reading of jointing kit manual 4. Measurement of cable as per manual 5. Peeling as per manual 6. Ferrule and socket punching as per manual	6	2	4
PC11.	insulate cable joints and terminations according to the specifications or code of practice using heat shrink tubing or cold mix compound, plumb lead or aluminum sheathed cable in any plane and apply the alternative use of mechanical earth connector.	6	1	5
PC12.	ensure continuity of cables	6	2	4
PC13.	ensure proper clamping of cables and tightening, ensure proper earthing of cable armor	6	1	5
PC14.	apply Live work procedures and skills for Tee and Straight LV joints and terminations	6	2	4





	PC15. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved		4	2	2
	PC16. leave the work area in a safe and tidy condition on completion of the repair and maintenance activities refer unresolved job related problems to appropriate personnel for support		6	2	4
		Total	100	30	70
2. PSS/N2001 Use basic health and safety practices for power related work	PC1. use protective clothing/equipment for specific tasks and work conditions.	100	3	0	3
	PC2. state the name and location of people responsible for health and safety in the workplace		2	0	2
	PC3. state the names and location of documents that refer to health and safety in the workplace		2	0	2
	PC4. identify job-site hazardous work and state possible causes of risk or accident in the workplace		3	1	2
	PC5. follow electrical safe working procedures such as Tag out/Lock out and display PTW (Permit To Work),		3	1	2
	PC6. follow warning signs (danger, out of service, etc.) while working with electrical systems		3	1	2
	PC7. use standard safe working practices when working at heights, confined areas and trenches		3	1	2
	PC8. test any electrical equipment and system using insulated testing devices before touching them		3	1	2
	PC9. ensure positive isolation of electrical equipment & system as per given standards		3	1	2
	PC10. recognize any abnormalities in electrical equipment or system installed alarm annunciation and/or noticing parameters from gauge/ indicator installed		3	1	2
	PC11. carry out safe working practices while dealing with hazards to ensure the safety of self and others		3	1	2



PC12.	state methods of accident prevention in the work environment of the job role	2	0	2
PC13.	state location of general health and safety equipment in the workplace	2	0	2
PC14.	inspect for faults, set up and safely use of scaffolds and elevated platforms and ladder	2	0	2
PC15.	lift, carry and transport heavy objects & tools safely using correct procedures from storage to workplace and vice versa	2	1	1
PC16.	inspect Grid station and its equipment routinely for any signs of oil and water leakage	2	0	2
PC17.	store flammable materials and machine lubricating oil safely and correctly	2	0	2
PC18.	check that the emission and pollution control devices are working properly in line with environmental policy standards	3	1	2
PC19.	apply good housekeeping practices at all times	3	1	2
PC20.	identify common hazard signs displayed in various areas	2	0	2
PC21.	retrieve and/or point out documents that refer to health and safety in the workplace	2	0	2
PC22.	inform relevant authorities about any abnormal situation/behavior of any equipment/system promptly	3	0	3
PC23.	use the various appropriate fire extinguishers on different types of fires correctly	2	1	1
PC24.	distinguish types of fire	3	1	2
PC25.	demonstrate rescue techniques applied during fire hazard	3	1	2
PC26.	demonstrate good housekeeping in order to prevent fire hazards	3	1	2
PC27.	demonstrate the correct use of a fire extinguisher	3	1	2
PC28.	demonstrate how to free a person from electrocution	3	1	2

	PC29. administer appropriate first aid to victims where required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc.		3	0	3
	PC30. demonstrate basic techniques of bandaging		3	1	2
	PC31. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments		3	1	2
	PC32. perform and organize loss minimization or rescue activity during an accident in real or simulated environments		3	1	2
	PC33. administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases		3	1	2
	PC34. demonstrate the artificial respiration and the CPR Process		3	1	2
	PC35. participate in emergency procedures Emergency procedures: raising alarm, safe/efficient, evacuation, correct means of escape, correct assembly point, roll call, correct return to work		3	1	2
	PC36. complete a written accident/incident report or dictate a report to another person, and send report to person responsible		3	1	2
	PC37. demonstrate correct method to move injured people and others during an emergency		3	1	2
			100	24	76
3. PSS/N1336 Work effectively with others	PC1. accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required	100	10	3	7
	PC2. accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt		10	3	7
	PC3. give information to others clearly, at a pace and in a manner that helps them to understand		10	3	7
	PC4. display helpful behaviour by performing tasks in a positive manner, where required and possible		10	3	7



	PC5. perform with others to maximize effectiveness and efficiency in carrying out tasks		10	3	7
	PC6. display appropriate communication etiquette while working		10	3	7
	PC7. display active listening skills while interacting with others at work		10	3	7
	PC8. use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism		10	3	7
	PC9. demonstrate responsible and disciplined behaviors at the workplace		10	3	7
	PC10. escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict		10	3	7
			100	30	70