



# Model Curriculum

**QP Name: Storekeeper - Plumbing Projects**

**QP Code: PSC/Q0401**

**QP Version: 1.0**

**NSQF Level: 4**

**Model Curriculum Version: 1.0**

Water Management and Plumbing Skill Council || Unit- 606 & 609, Tower-C, DLF Prime Towers, Phase-1, Okhla, Delhi, 110020

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## Training Parameters

|   |  |
|---|--|
| <b>Sector</b>   | Plumbing   |
| <b>Sub-Sector</b>                                       | Industrial / Non-Industrial Plumbing   |
| <b>Occupation</b>                                       | Material Handling  |
| <b>Country</b>  | India  |
| <b>NSQF Level</b>                                       | 4  |
| <b>Aligned to NCO/ISCO/ISIC Code</b>                    | NCO-2015/ 4322.0101  |
| <b>Minimum Educational Qualification and Experience</b> | 8th Class+ 2 years ITI with 2 Years of relevant experience<br>OR<br>10th Class with 2 Years of relevant experience<br>OR<br>12th Class Pass<br>OR<br>8th Class+ NSQF Level-3 Certification (Assistant Plumber-General) with 2 Years of relevant experience |
| <b>Pre-Requisite License or Training</b>                | NA   |
| <b>Minimum Job Entry Age</b>                            | 20 years   |
| <b>Last Reviewed On</b>                                 | 24/02/2022   |
| <b>Next Review Date</b>                                 | 24/02/2026   |
| <b>NSQC Approval Date</b>                               |  |
| <b>QP Version</b>                                       | 1.0  |
| <b>Model Curriculum Creation Date</b>                   | 24/02/2021   |
| <b>Model Curriculum Valid Up to Date</b>                | 24/02/2026   |
| <b>Model Curriculum Version</b>                         | 1.0  |
| <b>Minimum Duration of the Course</b>                   | 390 Hours  |
| <b>Maximum Duration of the Course</b>                   | 510 Hours  |

## Program Overview

This section summarizes the end objectives of the program along with its duration.

### Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Perform preparatory tasks for setting-up a plumbing store at a plumbing work site.
- Execute tasks related to upkeep of plumbing store materials and supplies and ensuring their availability
- Perform inbound and outbound documentation in a warehouse
- Adhere to health and safety practices at the workplace
- Work in an effective manner
- Demonstrate practices for optimizing resource utilization at the workplace
- Perform activities related to transport coordination

### Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| NOS and Module Details  | Theory Duration    | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration      |
|---|--------------------|--------------------|--|--|---------------------|
| <b>Bridge Module</b>  | <b>04:00 Hours</b> | <b>00:00 Hours</b> | <b>00:00 Hours</b>                       | <b>00:00 Hours</b>                         | <b>04:00 Hours</b>  |
| Module 1: Introduction to the sector and the job role   | 04:00 Hours        | 00:00 Hours        | 00:00 Hours                              | 00:00 Hours                                | 04:00 Hours         |
| <b>PSC/N0401-Prepare for Plumbing Store-Operations<br/>NOS Version No.: 1.0<br/>NSQF Level: 4</b>                                   | <b>54:00 Hours</b> | <b>36:00 Hours</b> | <b>00:00 Hours</b>                       | <b>25:00 Hours</b>                         | <b>115:00 Hours</b> |
| Module 2: Basics of Plumbing  | 30:00 Hours        | 00:00 Hours        | 00:00 Hours                              | 15:00 Hours                                | 45:00 Hours         |
| Module 3: Setting up a plumbing store   | 24:00 Hours        | 36:00 Hours        | 00:00 Hours                              | 10:00 Hours                                | 70:00 Hours         |
| <b>PSC/N0402-Ensure Upkeep and Availability of Plumbing Store Materials and Supplies<br/>NOS Version No.: 1.0<br/>NSQF Level: 4</b> | <b>34:00 Hours</b> | <b>64:00 Hours</b> | <b>00:00 Hours</b>                       | <b>25:00 Hours</b>                         | <b>123:00 Hours</b> |
| Module 4: Upkeep of materials and stock   | 17:00 Hours        | 32:00 Hours        | 00:00 Hours                              | 12:00 Hours                                | 61:00 Hours         |
| Module 5: Store Operations  | 17:00 Hours        | 32:00 Hours        | 00:00 Hours                              | 13:00 Hours                                | 62:00 Hours         |

|  |                     |                     |                    |                    |                     |
|--|---------------------|---------------------|--------------------|--------------------|---------------------|
| <b>LSC/N0107- Perform inbound and outbound documentation in a warehouse</b><br><b>NOS Version No.: 1.0</b><br><b>NSQF Level: 4</b> | <b>30:00 Hours</b>  | <b>68:00 Hours</b>  | <b>00:00 Hours</b> | <b>25:00 Hours</b> | <b>123:00 Hours</b> |
| Module 6: Inbound and outbound documentation   | 15:00 Hours         | 34:00 Hours         | 00:00 Hours        | 15:00 Hours        | 64:00 Hours         |
| Module 7: Claim's documentation  | 15:00 Hours         | 34:00 Hours         | 00:00 Hours        | 10:00 Hours        | 59:00 Hours         |
| <b>PSC/N0136- Apply health and safety practices at the workplace</b><br><b>NOS Version No.: 1.0</b><br><b>NSQF Level: 4</b>        | <b>12:00 Hours</b>  | <b>24:00 Hours</b>  | <b>00:00 Hours</b> | <b>06:00 Hours</b> | <b>42:00 Hours</b>  |
| Module 8: Health and safety  | 12:00 Hours         | 24:00 Hours         | 00:00 Hours        | 06:00 Hours        | 42:00 Hours         |
| <b>PSC/N0137- Work effectively with others</b><br><b>NOS Version No.: 1.0</b><br><b>NSQF Level: 4</b>                              | <b>08:00 Hours</b>  | <b>24:00 Hours</b>  | <b>00:00 Hours</b> | <b>06:00 Hours</b> | <b>38:00 Hours</b>  |
| Module 9: Working effectively  | 08:00 Hours         | 24:00 Hours         | 00:00 Hours        | 06:00 Hours        | 38:00 Hours         |
| <b>SGJ/N1702- Optimize resource utilization at workplace</b><br><b>NOS Version No.: 1.0</b><br><b>NSQF Level: 3</b>                | <b>08:00 Hours</b>  | <b>24:00 Hours</b>  | <b>00:00 Hours</b> | <b>03:00 Hours</b> | <b>35:00 Hours</b>  |
| Module 10: Optimum utilization of resources  | 08:00 Hours         | 24:00 Hours         | 00:00 Hours        | 03:00 Hours        | 35:00 Hours         |
| <b>Total Duration</b>  | <b>150:00 Hours</b> | <b>240:00 Hours</b> | <b>00:00 Hours</b> | <b>90:00 Hours</b> | <b>480:00 Hours</b> |

## Optional Module

The table lists the modules and their duration corresponding to the Optional NOS of the QP.

### Option 1: Transport Co-ordination

| <b>NOS and Module Details</b>  | <b>Theory Duration</b> | <b>Practical Duration</b> | <b>On-the-Job Training Duration (Mandatory)</b> | <b>On-the-Job Training Duration (Recommended)</b> | <b>Total Duration</b> |
|--|------------------------|---------------------------|---|---|-----------------------|
| <b>LSC/N0109- Perform transport coordination</b><br><b>NOS Version No. 1.0</b><br><b>NSQF Level: 4</b> | <b>06:00 Hours</b>     | <b>24:00 Hours</b>        | <b>00:00 Hours</b>                              | <b>00:00 Hours</b>                                | <b>30:00 Hours</b>    |
| Module 11: Transport Co-ordination   | 06:00 Hours            | 24:00 Hours               | 00:00 Hours                                     | 00:00 Hours                                       | 30:00 Hours           |
| <b>Total Duration</b>  | <b>06:00 Hours</b>     | <b>24:00 Hours</b>        | <b>00:00 Hours</b>                              | <b>00:00 Hours</b>                                | <b>30:00 Hours</b>    |

# Module Details

## Module 1: Introduction to the sector and the job role

### Bridge Module

#### Terminal Outcomes:

- Explain the importance of plumbing industry.
- List the key responsibilities of a storekeeper for plumbing projects.

|  |  |
|--|--|
| <b>Duration:</b> 04:00   | <b>Duration:</b> 00:00                   |
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b> |
| <ul style="list-style-type: none"> <li>• Outline the overview of the plumbing industry.</li> <li>• Discuss the scope of employment in the contracting segment of the industry.</li> <li>• List the key responsibilities of a storekeeper – plumbing projects.</li> </ul> |  |
| <b>Classroom Aids:</b>   |  |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook  |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Nil  |  |

## Module 2: Basics of plumbing

Mapped to PSC/N0401, v 1.0

### Terminal Outcomes:

- List the processes conducted at the plumbing work site.
- Identify the various plumbing related materials, tools and equipment.

| Duration: 30:00  | Duration: 00:00                   |
|--|-----------------------------------|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes |
| <ul style="list-style-type: none"> <li>• Outline the workflow, processes and quality procedures followed in organisations at the plumbing work site.</li> <li>• Classify various types of materials used at the work site.</li> <li>• Identify the types and grades of different pipe fittings and supports used in plumbing systems.</li> <li>• Distinguish between various fixtures, fixture materials, finishes.</li> <li>• Differentiate between different materials and equipment used in fire protection systems.</li> <li>• List basic tools, lubricants and chemicals required for plumbing operation at the workplace.</li> <li>• Recall terminologies related to plumbing and fire protection systems</li> </ul> |                                   |
| <b>Classroom Aids:</b>   |                                   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook  |                                   |
| <b>Tools, Equipment and Other Requirements</b>   |                                   |
| Plumbing products based on type, grades and specifications; pipes, fittings, joints, accessories and related hardware; plumbing tools and equipment; lubricants and chemicals used in plumbing work.   |                                   |

## Module 3: Setting up a plumbing store

Mapped to PSC/N0401, v 1.0

### Terminal Outcomes:

- Discuss ways of gathering information and supplies.
- Perform the steps to organise work area and equipment.

| Duration: 24:00  | Duration: 36:00   |
|--|---|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes   |
| <ul style="list-style-type: none"> <li>• Discuss the information mentioned in the material specification sheets and project documents.</li> <li>• State the importance of following work instructions received from the designated personnel.</li> <li>• Explain the risk and impact of not following defined procedures/work instructions.</li> <li>• List the equipment and infrastructural requirements of a plumbing store at the work site, and their authorized sources.</li> <li>• Summarize the factors to be considered to estimate the space required for stock storage.</li> <li>• Discuss the importance of co-ordinating with the relevant department in organisations to ensure adequate space and proper functioning of store-keeping software in computers.</li> <li>• Deliberate on the importance of following organization's policies on delivery standards, safety and hazards for a plumbing store.</li> <li>• Classify the various plumbing materials, tools, equipment, lubricants and chemicals to be stored.</li> <li>• List the various types of suppliers to be contacted for procuring stock.</li> <li>• Recall the various store related information to be recorded and the relevant software used for the same.</li> <li>• Discuss the importance of co-ordinating with the IT department to ensure proper functioning of store-keeping software in computers.</li> <li>• Outline the importance of following organizational procedure for reporting the work progress with respect to setting up the plumbing store.</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the extraction of relevant information from work instructions and/or related project documents.</li> <li>• Demonstrate the processes followed to obtain required equipment and infrastructure.</li> <li>• Calculate the space required for material storage.</li> <li>• Perform steps to check that the storage space is free from health and safety hazards.</li> </ul> |



**Classroom Aids:**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

**Tools, Equipment and Other Requirements**

Storekeeping resources (such as storage media, logbooks, entry registers, Microsoft Excel etc.); plumbing materials, tools and equipment; product catalogues, relevant project documents and client briefings, plumbing products based on type, grades and specifications; pipes, fittings, joints, accessories and related hardware; plumbing tools and equipment; lubricants and chemicals used in plumbing work.

## Module 4: Upkeep of materials and stock

Mapped to PSC/N0402, v 1.0

### Terminal Outcomes:

- Perform steps for the upkeep of materials and other stock related to the store.

|   |   |
|---|---|
| <b>Duration:</b> 17:00  | <b>Duration:</b> 32:00  |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Discuss the Plumbing Storekeeper's role in ensuring upkeep of materials and stock.</li> <li>• Describe the various stock-related duties.</li> <li>• Discuss the risk and impact of not following defined procedures/work instructions for upkeep of materials and stock</li> <li>• Explain the properties of materials required at the plumbing work site.</li> <li>• State the best practices used for stacking and preserving materials as per manufacturer instructions.</li> <li>• Elaborate on the importance of maintaining the inspection and test plans for piping activities.</li> <li>• Discuss the importance of applying storage related guidelines as per organisational procedures and manufacturer's instruction manual.</li> <li>• State the International Standards Organisation (ISO) and Indian Standards to be complied with, for executing store activities.</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the procedures for receiving, unloading and shelving material supplies as per work requirements.</li> <li>• Show how to perform various stock-related duties such as inwarding, outwarding, returning, packing, costing, and labelling of supplies as per defined procedures</li> <li>• Demonstrate measures that can be taken to ensure safety and security of the materials under custody.</li> <li>• Perform the steps to inspect deliveries in order to identify any damage and discrepancies.</li> <li>• Demonstrate the process of rotation the stocks.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook   |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| Storekeeping resources (such as storage media, logbooks, entry registers, Microsoft Excel etc.); plumbing materials, tools and equipment; product catalogues, relevant project documents and client briefings, Plumbing products based on type, grades and specifications; pipes, fittings, joints, accessories and related hardware; plumbing tools and equipment; lubricants and chemicals used in plumbing work.   |   |

## Module 5: Store Operations

Mapped to PSC/N0402, v 1.0

### Terminal Outcomes:

- Perform the activities involved in ensuring availability of materials and stock in the store.
- Perform the steps to issue, track and dispose stock.
- Employ appropriate procedures to carry out monetary and administrative operations for the store.

|   |   |
|---|---|
| <b>Duration:</b> 17:00  | <b>Duration:</b> 32:00  |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Discuss the Plumbing Storekeeper's role in ensuring availability of materials and stock.</li> <li>• Elaborate on the importance of monthly physical verification and supervision of materials.</li> <li>• Explain how to select the materials based on preliminary information received from materials specialist.</li> <li>• Describe practices adopted to ensure the availability and proper functioning of material handling equipment in coordination with relevant personnel.</li> <li>• Elaborate on the importance of MIS for stakeholders and the information to be shared.</li> <li>• Discuss the tools and procedure used for MIS and reporting.</li> <li>• Explain the accounting process for reimbursements and record keeping.</li> </ul> | <ul style="list-style-type: none"> <li>• Perform the steps involved in physical verification of materials in the store.</li> <li>• Demonstrate co-ordination activities for disposal of surpluses, handling of freight, movement of equipment and necessary minor repairs through role-plays.</li> <li>• Demonstrate the processes for issuance, tracking and charging of complimentary, reusable and chargeable materials respectively.</li> <li>• Perform the steps involved in claiming reimbursements.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook   |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| Storekeeping resources (such as storage media, logbooks, entry registers, Microsoft Excel etc.); plumbing materials, tools and equipment; product catalogues, relevant project documents and client briefings, plumbing products based on type, grades and specifications; pipes, fittings, joints, accessories and related hardware; plumbing tools and equipment; lubricants and chemicals used in plumbing work.   |   |

## Module 6: Inbound and Outbound Documentation

Mapped to LSC/N0107, v 1.0

### Terminal Outcomes:

- Perform the steps for checking inbound and outbound documents.
- Demonstrate the processing of inbound and outbound documents.

| Duration: 15:00   | Duration: 34:00  |
|---|--|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>• Describe the overall process in plumbing related warehouse operations</li> <li>• Explain the importance of a storekeeper's role in inbound and outbound documentation.</li> <li>• Illustrate the reporting structure and escalation matrix provided to a storekeeper in companies to support and expedite inbound and outbound documentation activities</li> <li>• Elaborate on the use of electronic tools like computers, printers and hand-held data management devices while dealing with inbound and outbound documentation.</li> <li>• List different material handling equipment and their uses for checking the packages.</li> <li>• Describe various inventory counting methods and processes.</li> <li>• Discuss the different types of goods being handled</li> <li>• Discuss the precautions and procedures with respect to handling of special items and dangerous goods.</li> <li>• List the mandatory documents to be checked in the packages, before unloading.</li> <li>• Discuss the various checks to be performed on the outbound manifest and packages to verify accuracy in documentation and the outbound packages.</li> <li>• Explain the procedures for dealing with loss or damage to goods.</li> <li>• State the importance of following the policy and quality standards related to inbound and outbound documentation generally adopted in plumbing related companies.</li> <li>• Discuss the use of labels and types of coding system followed to label items.</li> <li>• Elaborate on the importance of following up with the delivery team and updating status of the delivery in the system.</li> </ul> | <ul style="list-style-type: none"> <li>• Perform the steps to carry out arithmetic check on sample packages and their documentation to verify accuracy of numbers.</li> <li>• Perform appropriate checks for ensuring availability and correctness of air way bill, bill of lading, fumigation certificate, PGA (Participative Government Agencies) documentation, customs documentation etc.</li> <li>• Display the preliminary quality process for inbound damaged and tampered packages.</li> <li>• Create a sample inbound documentation.</li> <li>• Demonstrate the checks to be made on the delivery manifest and packages to verify accuracy in documentation and the packages.</li> <li>• Demonstrate the preliminary quality checks to be made on outbound packages for damages.</li> <li>• Draft a sample outbound documentation.</li> <li>• Demonstrate how to update the ERP with information like delivery status, failed deliveries, outbound documentation entries, etc.</li> </ul> |

- Describe the key features of the ERP system used for plumbing stores and the information that is maintained regarding inbound and outbound documentations using the same.

#### **Classroom Aids:**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

#### **Tools, Equipment and Other Requirements**

Documents such as bill of materials (BOM), purchase requisition, purchase order, materials receipt note (MRN), goods received note (GRN), stores requisition note; material transfer note (MTN), bin card, stores ledger, cash books, ledger registers, Microsoft Excel, ERP software and documents such as stock/inventory reconciliation, receipts, records and withdrawals of the stockroom, MIS reports, inspection and test plans; plumbing materials and supplies.

## Module 7: Claims Documentation

Mapped to LSC/N0107, v 1.0

### Terminal Outcomes:

- Perform the steps involved in preparation of claims documentation.

|  |  |
|--|--|
| <b>Duration: 15:00</b>   | <b>Duration: 34:00</b>   |
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Explain the importance of a storekeeper's role in insurance claims documentation.</li> <li>• List the documents which form a part of insurance claim documentation.</li> <li>• Recall the initial documents to be gathered for claims such as the list of claims, individual claim forms, claims processing checklist and inspection checklist.</li> <li>• State the claims related information to be maintained in the ERP system.</li> <li>• Illustrate the escalation process for false or outdated claims.</li> <li>• Elaborate on the process of forwarding the claims documents to the concerned insurance companies along with evidence post internal approval.</li> </ul> | <ul style="list-style-type: none"> <li>• Read the claims form to determine the reason for claims</li> <li>• Perform a visual inspection of the quarantined goods to check if reason of claim given in the claims form is appropriate.</li> <li>• Apply appropriate techniques to check if the samples are outdated or filed timely.</li> <li>• Conduct a check of all the required documents against the claims processing checklist.</li> <li>• Demonstrate how to complete the processing of the claim documentation.</li> </ul> |
| <b>Classroom Aids:</b>   |  |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook  |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Documents such as bill of materials (BOM), purchase requisition, purchase order, materials receipt note (MRN), goods received note (GRN), stores requisition note; material transfer note (MTN), bin card, stores ledger, cash books, ledger registers, Microsoft Excel, ERP software and documents such as stock/inventory reconciliation, receipts, records and withdrawals of the stockroom.  |  |

## Module 8: Health and safety

Mapped to *PSC/N0136, v 1.0*

### Terminal Outcomes:

- Describe the various risks and hazards at the workplace and their preventive and corrective measures
- Employ preventive and corrective measures to protect self and others from common workplace hazards and risk

|  |   |
|--|---|
| <b>Duration:</b> 12:00   | <b>Duration:</b> 24:00  |
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Differentiate between risks and hazards.</li> <li>• Discuss the specific safety and health related problems faced in domestic, commercial and institutional setups.</li> <li>• List the various types of hazards (such as physical, fire, chemical compounds and electrical) that could affect the work process.</li> <li>• List the various hazardous environments and common hazards that can occur during plumbing installation and maintenance along with their precautions and remedial measures.</li> <li>• Discuss the importance of various types of personal protective equipment (PPE).</li> <li>• Discuss where the general health and safety equipment commonly is kept at the workplace.</li> <li>• Explain the various types of safety signs and their significance in the work process.</li> <li>• Discuss various causes of fire and precautionary activities to prevent the fire accident.</li> <li>• List the different techniques that employ various methods (such as using extinguishers, water hose, sprinklers, sand bucket, wet blanket, etc.) and materials such as water, powder, foam, CO<sub>2</sub>, fire extinguishing chemical, sand, blanket, etc. used for extinguishing fire as per the type (as per class A, B, C and D).</li> <li>• Describe rescue techniques applied during a fire hazard or electrocution.</li> <li>• Discuss appropriate basic first aid treatment relevant to the condition e.g. shock, electrical shock, bleeding, minor burns, poisoning, eye injuries etc.</li> </ul> | <ul style="list-style-type: none"> <li>• Perform inspection of a work area in order to identify risks and hazards.</li> <li>• Apply various health and safety precautions to be taken during plumbing work.</li> <li>• Apply personal and workspace hygiene and sanitation practices.</li> <li>• Dramatize workplace emergency and evacuation procedures using role plays.</li> <li>• Demonstrate the correct use of fire extinguishers.</li> <li>• Dramatize, using role play, safe methods of freeing a person from electrocution.</li> <li>• Perform appropriate first aid treatment for various conditions such as bleeding, burns, choking, electric shock and poisoning and injury.</li> <li>• Demonstrate the process of providing cardiopulmonary resuscitation (CPR).</li> </ul> |

- Discuss potential injuries and health problems associated with incorrect handling of tools and equipment.

#### **Classroom Aids:**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

#### **Tools, Equipment and Other Requirements**

Personal protective equipment (such as eye protector, hard hats, safety belts, gloves, protective clothing), plumbing tools and materials, power tools, required machinery, fire extinguisher, first aid kit.



## Module 9: Working effectively with others

Mapped to PSC/N0137, v 1.0

### Terminal Outcomes:

- Apply effective communication techniques.
- Demonstrate teamwork and a positive attitude.
- Demonstrate responsible and disciplined behaviour.

| Duration: 08:00   | Duration: 24:00  |
|---|--|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>• State the importance of effective communication in the workplace.</li> <li>• List various people that one is required to communicate and coordinate with, in an organisation and their hierarchical relationship.</li> <li>• List various components of effective communication.</li> <li>• State the importance of using inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive.</li> <li>• State the importance of teamwork and developing effective working relationships for professional success.</li> <li>• Discuss the importance and ways of managing interpersonal conflict effectively.</li> <li>• Discuss how to express and address grievances appropriately and effectively.</li> <li>• State the importance of ethics and discipline for professional success.</li> <li>• Explain what constitutes disciplined behaviour and integrity for a working professional.</li> <li>• Discuss the legislation, standards, policies, and procedures relevant to own employment and performance conditions.</li> <li>• Discuss importance of dress code in organisations.</li> <li>• Explain the impact of gender, disability, cultural and age-related biases, stereotyping at the workplace and in society.</li> <li>• List the different types of disabilities and the challenges faced by persons with disability (PwD).</li> <li>• State the laws, acts, provisions and schemes defined for PwD by the Government bodies.</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate techniques used for ensuring timely receipt of complete information and instructions from appropriate sources.</li> <li>• Apply practices that improve effectiveness while providing information.</li> <li>• Demonstrate the use of inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive.</li> <li>• Illustrate the use of appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism.</li> <li>• Dramatize a situation to show effective team work.</li> <li>• Dramatize (through role-play) disciplined behaviours at the workplace.</li> <li>• Dramatize (through role-play) the process of escalation of grievances and problems.</li> <li>• Recognize indicators of harassment and discrimination based on gender, disability, caste, religion, colour, sexual orientation and culture at workplace.</li> <li>• Demonstrate practices to eliminate personal bias based on gender, disability, caste, religion, colour, sexual orientation and culture from routine transactions.</li> </ul> |

- Discuss gender, disability and cultural biases, stereotypes and impact on others.
- Discuss basic gender concepts such as gender power relations, gender roles, access and control, gender sensitivity, gender equity and equality.
- Discuss the importance of gender sensitivity and equality.
- List the indicators of harassment and discrimination based on gender, disability, caste, religion or culture that occurs at a typical workplace.
- State general organisational norms and procedures applied to protect against harassment and discrimination.
- Discuss the importance of reporting incidents of harassment and discrimination to appropriate authority.

#### **Classroom Aids:**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

#### **Tools, Equipment and Other Requirements**

Nil

## Module 10: Optimum utilisation of resources

Mapped to SGJ/N1702, v 1.0

### Terminal Outcomes:

- Use the material in an optimum way at work.
- Use energy/electricity optimally at work.
- Employ practices for minimization of waste generation.
- Demonstrate the process of waste disposal as per industry approved standards.

|   |   |
|---|---|
| <b>Duration:</b> 08:00  | <b>Duration:</b> 24:00  |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Discuss the practices and impact of inefficient utilization of material and water.</li> <li>• Describe ways of efficiently managing material and water in the process.</li> <li>• Explain the basics of electricity.</li> <li>• List common electrical and thermal equipment used in a plumbing workplace.</li> <li>• Describe the use of prevalent energy efficient devices.</li> <li>• List indicators of common electrical problems.</li> <li>• Discuss common practices of conserving electricity.</li> <li>• Explain the importance of checking if the equipment/machine is functioning normally before commencing work and ensuring it is rectified.</li> <li>• Explain the usage of different colours of dustbins.</li> <li>• Differentiate between recyclable and non-recyclable, and hazardous waste generated.</li> <li>• Discuss efficient waste management practices.</li> <li>• Discuss the common ways employed by organizations, to minimize waste generated from plumbing activities.</li> <li>• Discuss common sources of pollution and ways to minimize it</li> <li>• Explain the importance of reporting malfunctioning (fumes /sparks /emission /vibration /noise) and lapse in the maintenance of equipment on time.</li> </ul> | <ul style="list-style-type: none"> <li>• Identify ways to optimize usage of water and other materials in various tasks/activities/processes.</li> <li>• Perform inspection to check for spills/leakages at a workplace.</li> <li>• Apply various material conservation practices with respect to plumbing work.</li> <li>• Perform inspection of the work area for improperly connected electrical equipment.</li> <li>• Apply appropriate techniques to use energy/electricity in an optimum way.</li> <li>• Categorize waste into dry, wet, recyclable, non-recyclable and items of single-use plastics.</li> <li>• Employ effective waste management / recycling practices.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook   |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| Energy-saving devices, Non-recyclable, recyclable and reusable waste  |   |

## Module 11: Transport Coordination

Mapped to LSC/N0109, v 1.0

### Terminal Outcomes:

- Display the coordination activities to be undertaken with internal teams and transport operators.

| Duration: 06:00  | Duration: 24:00   |
|--|---|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes   |
| <ul style="list-style-type: none"> <li>• Elaborate on the importance of the storekeeper's role in transportation workflow.</li> <li>• Illustrate the reporting and escalation structure available in companies to support and expedite transportation activities.</li> <li>• List key policy and quality standard features with respect to transportation in plumbing related companies.</li> <li>• Discuss different types of shipments being handled and the precautions and procedures with respect to them.</li> <li>• Discuss types of trucks used for different types of goods.</li> <li>• List the criteria for identifying and finalizing transporters based on shipping requirements of clients.</li> <li>• Illustrate the cost analysis for transport</li> <li>• Explain the importance of communicating the cost analysis clearly to the client and obtaining the client's approval.</li> <li>• Elaborate on the importance of informing the supervisors in various departments regarding the pickup and transport timing.</li> <li>• Summarise main elements of transportation documentation.</li> <li>• Explain how to identify different geographical locations from the documentation.</li> <li>• Discuss the importance of timely resolution of the transportation problems and, complaints and queries.</li> <li>• State transportation related information that that is maintained in the ERP system.</li> </ul> | <ul style="list-style-type: none"> <li>• Perform the steps involved in preparation of documentation related to finalisation of transporter.</li> <li>• Roleplay a situation on how to coordinate with a transporter for a pickup.</li> <li>• Perform the checks carried out to ensure that the transporter documents are in order during pick up.</li> <li>• Demonstrate the process of reporting the pickup and transport timing.</li> <li>• Apply appropriate methods to if the cargo is properly arranged in loading bay in adherence to consolidation chart and in correct quantity.</li> <li>• Demonstrate the process of updation of transport information in ERP.</li> </ul> |

|  |
|--|
| <b>Classroom Aids:</b>   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook                            |
| <b>Tools, Equipment and Other Requirements</b>   |
| Computer, printer, transportation documentation, Warehouse management system (WMS) software, Enterprise Resource Planning (ERP) system, etc. |

## Annexure

### Trainer Requirements

| Trainer Prerequisites             |                                 |                              |                       |                     |                       |         |
|-----------------------------------|---------------------------------|------------------------------|-----------------------|---------------------|-----------------------|---------|
| Minimum Educational Qualification | Specialization                  | Relevant Industry Experience |                       | Training Experience |                       | Remarks |
|                                   |                                 | Years                        | Specialization        | Years               | Specialization        |         |
| B. Tech/ BE                       | Civil or Mechanical Engineering | 3                            | Plumbing/Storekeeping | 1                   | Plumbing/Storekeeping |         |
| Diploma                           | Civil or Mechanical Engineering | 4                            | Plumbing/Storekeeping | 1                   | Plumbing/Storekeeping |         |

| Trainer Certification   |  |
|---|--|
| Domain Certification  | Platform Certification   |
| Certified for Job Role: “Storekeeper – Plumbing Projects” mapped to QP: “PSC/Q0401, v1.0”. Minimum accepted score is 80%. | Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q2601”. Minimum accepted score as per MEPSC guidelines is 80%. |

## Assessor Requirements

| Assessor Prerequisites            |                                 |                              |                       |                                |                    |         |
|-----------------------------------|---------------------------------|------------------------------|-----------------------|--------------------------------|--------------------|---------|
| Minimum Educational Qualification | Specialization                  | Relevant Industry Experience |                       | Training/Assessment Experience |                    | Remarks |
|                                   |                                 | Years                        | Specialization        | Years                          | Specialization     |         |
| M. Tech                           | Civil or Mechanical Engineering | 2                            | Plumbing/Storekeeping | 2                              | Plumbing/Logistics |         |
| B. Tech                           | Civil or Mechanical Engineering | 4                            | Plumbing/Storekeeping | 2                              | Plumbing/Logistics |         |
| Diploma                           | Civil or Mechanical Engineering | 5                            | Plumbing/Storekeeping | 4                              | Plumbing/Logistics |         |

| Assessor Certification  |  |
|---|--|
| Domain Certification  | Platform Certification   |
| Certified for Job Role: “Storekeeper – Plumbing Projects” mapped to QP: “PSC/Q0401, v1.0”. Minimum accepted score is 80%. | Recommended that the Assessor is certified for the Job Role: “Assessor”, mapped to the Qualification Pack: “MEP/Q2701”. Minimum accepted score as per MEPSC guidelines is 80%. |

## Assessment Strategy

Assessment is done through third parties who are affiliated to IPSC as Assessment Body. Assessors are trained & certified by IPSC through Training of Assessors program. The assessment involves two processes. The first process is gathering the evidence of the competency of individuals. The second part of the assessment process is the judgement, based on the evidence as to whether a person is competent as per the standard or not. The assessment plan contains the following information:

- What will be assessed, i.e. the competency based on each NOS
- How assessment will occur i.e. methods of assessment
- When the assessment will occur
- Where the assessment will take place i.e. context of the assessment (workplace/simulation)
- The criteria for decision making i.e. those aspects that will guide judgements and
- Where appropriate, any supplementary criteria used to make a judgement on the level of performance.

The assessment is conducted through theory, viva voce and practical.



## References

## Glossary

| Term                         | Description   |
|------------------------------|---|
| <b>Declarative Knowledge</b> | Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.   |
| <b>Key Learning Outcome</b>  | Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |
| <b>OJT (M)</b>               | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site  |
| <b>OJT (R)</b>               | On-the-job training (Recommended); trainees are recommended the specified hours of training on site   |
| <b>Procedural Knowledge</b>  | Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.  |
| <b>Training Outcome</b>      | Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.  |
| <b>Terminal Outcome</b>      | Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.   |

## Acronyms and Abbreviations

| Term | Description                             |
|------|---|
| QP   | Qualification Pack                      |
| NSQF | National Skills Qualification Framework |
| NSQC | National Skills Qualification Committee |
| NOS  | National Occupational Standards         |