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| **Model Curriculum**  **QP Name: Tank Farm Supervisor**  **QP Code: LSC/** **Q3512**  **QP Version: 2.0**  **NSQF Level: 5**  **Model Curriculum Version: 2.0** |
| **­**  Logistics Sector Skill Council|| Logistics Sector Skill Council, No. 480 A, 7th floor Khivraj Complex 2, Anna Salai, Nandanam, Chennai, Tamil Nadu 600035 |

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**Training Parameters**

|  |  |
| --- | --- |
| **Sector** | Logistics |
| **Sub-Sector** | LIQUID LOGISTICS |
| **Occupation** | Port Operations Coordination, Documentation and Reporting,  Liquid transportation Operations, Engineering/ Maintenance |
| **Country** | India |
| **NSQF Level** | 5 |
| **Aligned to NCO/ISCO/ISIC Code** | NCO – 2015 – 1324.1201 and ISCO -08 - 3122 |
| **Minimum Educational Qualiﬁcation and Experience** | Completed 1st year of UG (UG Certificate) or Pursuing 2nd year of UG  or Completed 1st year of diploma (after 12th)  or Pursuing 2nd year of 2-year diploma after 12th  or 12th pass with 1 year Vocational Education & training (NTC or NAC or CITS)  or Completed 3 year diploma after 10th + 1 year relevant experience  or 12th Grade pass + 2 year relevant experience  or 10th Grade pass + 4 year relevant experience  or Certificate-NSQF (Tank Farm Executive - level 4) with minimum education as 8th Grade pass + 3 year relevant experience  or Previous relevant Qualification of NSQF Level 4.5 + 1.5 year relevant experience |
| **Pre-Requisite License or Training** | NA |
| **Minimum Job Entry Age** | 21 |
| **Last Reviewed On** | NA |
| **Next Review Date** | NA |
| **NSQC Approval Date** | NA |
| **QP Version** | 2.0 |
| **Model Curriculum Creation Date** | 04-08-2022 |
| **Model Curriculum Valid Up to Date** | 04-08-2025 |
| **Model Curriculum Version** | 2.0 |
| **Minimum Duration of the Course** | 600 hrs |
| **Maximum Duration of the Course** | 720 hrs |

# 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 will be able to:

## Allocate resources based on activities scheduled in tank farm

## Inspect tank farm operations for compliance to maintenance, regulatory and inventory monitoring requirements

## Supervise cleaning, and loading/unloading activities in tank farm as per regulatory and process requirements

## Examine cargo documentation for compliance to regulatory and customer requirements

## Analyse tank farm operations and forecast schedules and business

## Comply to work place integrity, ethical and regulatory practices.

## Manage workplace for safe and healthy work environment by following and ensuring compliance to regulatory and safety norms.

## Options:

## Analyse tank farm infrastructure maintenance, budgeting, forecasting and operations

## Manage yard for optimal and efficient storage and compliance to regulatory requirements

## Compulsory Modules

The table lists the modules, their duration and mode of delivery.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NOS and Module Details | Theory  Duration | Practical  Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
| Bridge Module | **20** | **10** |  |  | **30** |
| Module 1: Introduction to Tank Farm Supervisor | 20 | 10 |  |  | 30 |
| LSC/N3524 – Allocate resources and streamline operations in ports and liquid terminals  NOS Version 1.0  NSQF Level 5 | **20** | **60** | **10** |  | **90** |
| Module 2: Resource allocation and tank farm operations | 20 | 60 | 10 |  | 90 |
| LSC/N3525 – Perform tank farm inspections, inventory tracking and training  NOS Version 1.0  NSQF Level 5 | **20** | **60** | **10** |  | **90** |
| Module 3: Inventory control at tank farm | 20 | 60 | 10 |  | 90 |
| LSC/ N4308 – Supervise cleaning pumping and loading activities  NOS Version 1.0  NSQF Level 5 | **20** | **60** | **10** |  | **90** |
| Module 4: Inventory control at tank farm | 20 | 60 | 10 |  | 90 |
| LSC/ N0322 - Review documentation and regulatory compliances for liquid cargo  NOS Version 1.0  NSQF Level 5 | **20** | **40** |  |  | **60** |
| Module 5: Documents related to cargo and its compliance | 20 | 40 |  |  | 60 |
| LSC/ N0323 - Analyze trends and prepare forecasts and schedules  NOS Version 1.0  NSQF Level 5 | **20** | **40** |  |  | **60** |
| Module 6: Trend analysis and forecasting | 20 | 40 |  |  | 60 |
| LSC/ N9904 - Guideline on integrity and ethics NOS Version 1.0  NSQF Level 5 | **20** | **40** |  |  | **60** |
| Module 7: Maintain and monitor integrity and ethics in operations | 20 | 40 |  |  | 60 |
| LSC/N9905 - Follow health, safety and security procedures in liquid logistics  NOS Version 1.0  NSQF Level 5 | **20** | **40** |  |  | **60** |
| Module 8: Follow health safety and security procedures | 20 | 40 |  |  | 60 |
| Employability  DGT/VSQ/N0102 | **30** | **30** |  |  | **60** |
| Total Duration | **190** | **380** | **30** |  | **600** |

## 

## Optional Modules

The table lists the option modules, their duration and mode of delivery.

**Option 1: Tank Farm Supervision**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NOS and Module Details | Theory  Duration | Practical  Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
| LSC/ N3528 - Conduct daily review and facilitate operations in tank farms  NOS Version 1.0  **NSQF Level 5** | **30** | **30** |  |  | **60** |
| Module 8: Tank farm infrastructure and operations management | 30 | 30 |  |  | 60 |
| Total Duration | **30** | **30** |  |  | **60** |

**Option 2: Ship and Yard Planning**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NOS and Module Details | Theory  Duration | Practical  Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
| LSC/ N3511 - Perform ship and yard planning NOS Version 1.0  **NSQF Level 5** | **30** | **30** |  |  | **60** |
| Module 8: Ship and yard planning operations | 30 | 30 |  |  | 60 |
| Total Duration | **30** | **30** |  |  | **60** |

**Module Details**

## Module 1: Introduction to Tank Farm Supervisor

***Mapped to Bridge Module***

**Terminal Outcomes:**

* Describe the basic structure and functions of supply chain and logistics sector
* Detail the role of Tank Farm Supervisor.

|  |  |
| --- | --- |
| Duration: *20:00* | Duration: *10:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Explain the basics of supply chain and logistics sector * Describe the various sub-sectors and the opportunities in them * Detail various activities in warehouse, port yard, land, ship and air transportation * Explain job roles in ports and tank farms * Describe your job role as tank farm supervisor and its interface with other job roles * Discuss the various activities in a port yard and tank farm * Describe the various documentation in tank farm and liquid transport * Discuss the basics of hazardous goods handling | * Classify the components of Supply Chain and Logistics sector * Identify the various sub-sectors and the opportunities in them * Interpret a variety of activities that take place in warehouse, port yard, land, ship and air transportation * Illustrate the different job roles available in ports and tank farms * Demonstrate your job role as tank farm supervisor and how it impacts other functions * Categorize all the events in a port yard in terms of Tank farming * Prepare some of the documents used in tank farm and liquid transport * Practice the ways to handle hazardous goods |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| Teaching board, computer, projector, video player or TV | |

**Module 2: Resource allocation and tank farm operations**

***Mapped to LSC/N3524, v1.0***

**Terminal Outcomes:**

* Detail the steps involved in Tank operations
* Describe planning of various activities in liquid cargo movement and operations.

|  |  |
| --- | --- |
| Duration: *20:00* | Duration: *60:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Explain the process of preparing a tank farm working plan * Describe the requirements for preparing a resource budget. * Detail liquid cargo movement plan to the team * Describe liquid cargo loading/unloading procedure * Develop preventive and corrective action plans basis the situation * Describe working relationship elements among shipping companies, freight operators, vessel, port authorities and other agencies * Define terminal cleanliness requirements | * Devise a working plan for tank farming. * Prepare resource budget based on requirements * Discuss the liquid cargo movement plan with the team * Practice liquid cargo loading/unloading * Discuss how relationship elements work among shipping companies, freight operators, vessel, port authorities and other agencies * Demonstrate terminal cleanliness requirements and procedures * Monitor compliance to terminal cleanliness requirements * Develop robust operational process |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| Stationery, RFID scanner, bar code scanner, markers, PPEs, ERP, computer, printers, GPS tracker, piping and pumping equipment, IMDG, HAZCHEM codes and SOPs etc. | |

## Module 3: Inventory control at tank farm

## *Mapped to LSC/N3525, V1.0*

**Terminal Outcomes:**

* Detail the inspection process in inventory
* Describe the preventive and corrective actions to be taken.

|  |  |
| --- | --- |
| Duration: *20:00* | Duration: *60:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Describe parameters of tank farm equipment, alarms, control systems, piping and pumping system etc. * Detail the preventive and corrective actions to be taken to address anomalies in operation * Discuss the corrective and preventive actions to be undertaken to arrest cargo loss * Explain the inspection methods for tank farm and its equipment, controls etc * Detail the maintenance activities to be undertaken for corrosion, leakage, spillage, etc. * Explain the SOP, disaster response, regulatory compliance etc. | * Analyse the parameters of tank farm equipment, alarms, control systems, piping and pumping system etc. * Devise the preventive and corrective actions to be taken * Compute the quantity and reasons for cargo loss * Illustrate the steps to be followed for preventing loss * Examine tank farm and its equipment, controls etc * Perform various activities to arrest corrosion, leakage, spillage, etc. * Compute a SOP for disaster response, regulatory compliance etc. * Document the inspections done and findings |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| Tank farm, pipeline, pumps, controls and valves, central control unit, simulator, PPE, computer, projector, worksheets, stationery etc. | |

## Module 4: Cleaning, pumping, loading/unloading in tank farms

## *Mapped to LSC/N4308, V1.0*

**Terminal Outcomes:**

* Describe cleaning and post cleaning inspection process
* Detail the maintenance and loading/unloading methods

|  |  |
| --- | --- |
| Duration: *20:00* | Duration: *60:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Describe the tank cleaning and residual removal process * Explain inspection methods for noxious and hazardous gasses in tank * Describe the post tank cleaning inspection process * Detail the equipment fitness tests to be conducted before pumping operation * Describe the documentation requirements for loading/unloading * Describe the standard parameters to be maintained for pumping operation * Explain planning of loading/unloading activities * Describe fitness requirement of transport vehicles/wagons as per regulatory requirements | * Demonstrate how to clean tanks and remove residual. * Perform inspection for noxious, hazardous gasses in tank. * Inspect tanks, post the cleaning process. * Examine equipment fitness before pumping operation * Prepare the documentation for loading/unloading * Demonstrate pumping operation and the parameters to be followed. * Analyse loading/unloading requirements * Devise a plan for streamlining loading/unloading activities. * Evaluate the fitness requirements of transport vehicles/wagons as per regulatory. * Record loading/unloading and inventory in tank farms |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| Tank, pipelines, control and measuring equipment, tools and tackles, fire-fighting systems and alarms, liquid cargo, control console, consumables, SOP, computer, projector, worksheets, etc. | |

## Module 5: Documents related to cargo and its compliance

## *Mapped to LSC/N4322, V1.0*

**Terminal Outcomes:**

* Detail the various documentations for liquid cargo
* Detail gate entry and exit procedure
* Detail evacuation and first response protocol
* Explain resolution process

|  |  |
| --- | --- |
| Duration: *20:00* | Duration: *40:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Describe the various import and export documentation required as per regulation for liquid cargo * Detail the licenses and documentation requirement for liquid cargo transportation vehicles * Explain fitness testing procedure for MHEs * Detail gate entry and exit procedure * Explain inspection procedure for disaster response equipment * Detail evacuation and first response protocol in case of pollution/disaster * Explain resolution process for queries, correspondences, grievances and regulatory documents | * Prepare import and export documents for liquid cargo * Perform fitness test for MHEs for checking the condition. * Illustrate gate entry and exit procedure * Inspect the disaster response equipment and record the inputs. * Prepare compliance and fitness documentation * Demonstrate evacuation and first response protocol in case of pollution/disaster * Devise a resolution process for addressing queries, correspondences and grievances. |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| Cargo documentation, vehicle documentation, IMDG, HAZCHEM documents, SOP, computer, projector, worksheets, stationery etc | |

## Module 6: Trend analysis and forecasting

## *Mapped to LSC/N4323, V1.0*

**Terminal Outcomes:**

* Describe the various reports involved in cargo movement, frequency of loading/unloading and ageing
* Detail forecasting, budgeting and scheduling process

|  |  |
| --- | --- |
| Duration: *20:00* | Duration:*40:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Describe the process of cargo movement, frequency of loading/unloading, ageing reports * Detail the alternate solutions for improving utilisation of tank farm assets and reducing turn-around time * Describe forecasting process for cargo mix based on historic data and committed business * Explain budgeting process built on forecasting. | * Analyse cargo movement, frequency of loading/unloading, ageing reports * Analyse trucking process parameters, time taken for loading/unloading etc * Prepare alternate solutions for improving utilisation of tank farm assets and reducing turn-around time * Devise a forecasting for cargo mix based on historic data and committed business * Prepare a budget based on forecasting derived. * Sketch work schedules for improving utilization * Analyse the tank and equipment performance * Schedule the maintenance activity of tank equipment |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| ERP, MIS reports, computer, projector, stationery, worksheets etc. | |

## Module 7: Guidelines on integrity and ethics

***Mapped to LSC/N9904, v1.0***

**Terminal Outcomes:**

* Explain the concepts of integrity, ethics
* Detail the various regulatory requirements related to logistics industry

|  |  |
| --- | --- |
| Duration: *20:00* | Duration: *40:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Describe the concepts of integrity, ethics * Detail the various regulatory requirements related to logistics industry * Explain data and information security practices * Detail the procedure for documenting all integrity and ethics violations * Explain escalation matrix for reporting deviation | * Practice the principles of integrity and ethics * Follow the various regulatory requirements related to logistics industry * Perform data and information security practices * Discuss on methods to identify and avoid corrupt practices * Discuss regulatory requirements, code of conduct and etiquettes * Comply to regulatory requirements of the company * Practice code of conduct and etiquettes on all aspects * Document all integrity and ethics violations * Report deviation as per the escalation matrix |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| SOP, Teaching board, computer, projector, video player, stationery, worksheets and TV | |

## Module 8: Compliance to health safety and security norms

***Mapped to LSC/N9905, v1.0***

**Terminal Outcomes:**

* Describe health, safety, and security procedures in warehouse
* Demonstrate the inspection procedure to ensure appropriate and safe conditions of activity area and equipment
* Illustrate the standard protocol to be followed during emergency situations, accidents and breach of safety

|  |  |
| --- | --- |
| Duration: *20:00* | Duration: *40:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Detail health, safety and security procedures in warehouse * Describe the 5S to be followed at workplace * Explain the inspection procedure to ensure appropriate and safe conditions of activity area and equipment * Discuss unsafe working conditions in operations * Describe the inspection procedure to check safe handling of hazardous goods * Discuss the standard protocol to be followed during emergency situations, accidents and breach pf safety * Document health, safety and security violations * Explain the escalation matrix for reporting deviation | * Follow health, safety and security procedures in warehouse * Practice 5S at the allocated workplace * Inspect the activity area and equipment, for appropriate and safe conditions * Identify unsafe working conditions * Inspect adherence to standard operating procedures (SOP) while handling dangerous and hazardous goods * Implement standard protocol in case of emergency situations, accidents, and breach of safety * Prepare report on health, safety and security violations * Report deviation as per the escalation matrix |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| PPEs, MHEs like Forklift, reach stacker, pallet truck, barcode scanner, packaging devices, packing material, markers and stationery, etc | |

# Module 9: Employability Skills

***Mapped to DGT/VSQ/N0102, v1.0***

**Terminal Outcomes:**

* Discuss the Employability Skills required for jobs in various industries
* Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
* Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan

|  |  |
| --- | --- |
| Duration: *30:00* | Duration: *30:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Discuss the Employability Skills required for jobs in various industries * List different learning and employability related GOI and private portals and their usage * Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen * Discuss importance of relevant 21st century skills. * Describe the benefits of continuous learning. * Explain the importance of active listening for effective communication * Discuss the significance of working collaboratively with others in a team * Discuss the significance of escalating sexual harassment issues as per POSH act. * List the common components of salary and compute income, expenditure, taxes, investments etc. * Discuss the legal rights, laws, and aids * Describe the role of digital technology in today’s life * Discuss the significance of displaying responsible online behaviour while browsing, using various social media platforms, e-mails, etc., safely and securely * Explain the types of entrepreneurship and enterprises * Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan * Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement * Detail the significance of analyzing different types and needs of customers * Explain the significance of identifying customer needs and responding to them in a professional manner. * Discuss the significance of maintaining hygiene and dressing appropriately * Explain the significance of maintaining hygiene and confidence during an interview * List the steps for searching and registering for apprenticeship opportunities | * Practice different environmentally sustainable practices. * Exhibit 21st century skills like Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life. * Demonstrate to use basic English sentences for everyday conversation in different contexts, in person and over the telephone * Read and interpret text written in basic English * Write a short note/paragraph / letter/e -mail using basic English * Create a career development plan with well-defined short- and long-term goals * Communicate effectively using verbal and nonverbal communication etiquette. * Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD * Outline the importance of selecting the right financial institution, product, and service * Demonstrate how to carry out offline and online financial transactions, safely and securely * Operate digital devices and use the associated applications and features, safely and securely * Create sample word documents, excel sheets and presentations using basic features * Utilize virtual collaboration tools to work effectively * Devise a sample business plan, for the selected business opportunity * Create a professional Curriculum Vitae (CV) * Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively * Perform a mock interview |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser, UPS, LCD Projector, Computer Tables & chairs | |
| **Tools, Equipment and Other Requirements** | |
| Computer (PC) with latest configurations – and Internet connection with standard operating system and standard word processor and worksheet software (Licensed) (all software should either be latest version or one/two version below), Scanner cum Printer | |

**OPTION 1: Tank Farm Infrastructure Management**

***Mapped to LSC/*** ***N3528, v1.0***

**Terminal Outcomes:**

* Describe the tank farm inspection process for assessing fitness of infrastructure and equipment
* Explain resource allocation, budgets and maintenance requirements approval process
* Detail working relationship elements among shipping companies, freight operators, vessel, port authorities and other agencies

|  |  |
| --- | --- |
| Duration: *30:00* | Duration: *30:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Describe the tank farm inspection process for assessing fitness of infrastructure and equipment * Detail the process of preparing a effective budget * Explain resource allocation, budgets and maintenance requirements approval process * Describe the compliance requirements for safety, security and regulatory aspects * Detail working relationship elements among shipping companies, freight operators, vessel, port authorities and other agencies | * Assess fitness of infrastructure and equipment * Evaluate operational performance metrics of tank farm * Review disaster plan, maintenance plan, cleaning of tanks and work schedule * Propose corrective and preventive actions to improve operations * Analyse the budgetary allocations before implementing * Forecast cargo mix based on historic data and committed business * Appraise cleaning, and maintenance process and approve |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| Computers, MIS, ERP, performance review software, budgeting and forecasting software, etc. | |

**OPTION 2: Ship and Yard Planning**

***Mapped to LSC/N3511, v1.0***

**Terminal Outcomes:**

* Describe planning storage space allocation, hazardous cargo segregation and yard usage.
* Detail about developing cargo movement plan based on cargo ageing in yard as a corrective action
* Detail the report preparation process for capturing damages, plan vs performance, accidents, ageing etc.

|  |  |
| --- | --- |
| Duration: *30:00* | Duration: *30:00* |
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| * Describe the process of allocating storage space based on goods/container and yard usage. * Detail about developing cargo movement plan based on cargo ageing in yard as a corrective action * Elaborate recording cargo movement operational metrics and cargo movement transactions. * Detail the report preparation process for capturing damages, plan vs performance, accidents, ageing etc. * Explain hazardous cargo segregation and storage procedure | * Analyse how the yard is being used * Allocate storage space based on goods/container category * Compute cargo ageing in yard to take corrective action * Develop cargo movement plan based on ageing. * Measure cargo movement operational metrics * Record the cargo movement transactions daily * Report cargo movement metrics, damages, plan vs performance, accidents, ageing etc. * Inspect yard for segregation of bays and cargo storage as per plan * Inspect yard for adherence to cleanliness, safety precaution and PPE usage * Prepare cargo movement documentation |
| **Classroom Aids** | |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser | |
| **Tools, Equipment and Other Requirements** | |
| Stationery, SOP, RFID scanner, bar code scanner, markers, PPEs, ERP, computer, display board, printer, MHEs, etc | |

# 

# Annexure

## Trainer Requirements

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Trainer Prerequisites | | | | | | |
| Minimum Educational Qualification | **Specialization** | **Relevant Industry Experience** | | **Training Experience** | | **Remarks** |
| ***Years*** | ***Specialization*** | ***Years*** | ***Specialization*** |  |
| Graduate |  | 2 | Port Operations Coordination, Documentation and Reporting,  Liquid transportation Operations, Engineering/ Maintenance | 1 | Port Operations Coordination, Documentation and Reporting,  Liquid transportation Operations, Engineering/ Maintenance |  |

|  |  |
| --- | --- |
| Trainer Certification | |
| Domain Certification | **Platform Certification** |
| Certified for Job Role: “Tank Farm Supervisor” mapped to QP: “LSC/ Q3512, v2.0”. 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 is 80% |

## Assessor Requirements

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Assessor Prerequisites | | | | | | |
| Minimum Educational Qualification | **Specialization** | **Relevant Industry Experience** | | **Training/Assessment Experience** | | **Remarks** |
| ***Years*** | ***Specialization*** | ***Years*** | ***Specialization*** |  |
| Graduate | NA | 1 | Port Operations Coordination, Documentation and Reporting,  Liquid transportation Operations, Engineering/ Maintenance | 1 | Port Operations Coordination, Documentation and Reporting,  Liquid transportation Operations, Engineering/ Maintenance |  |

|  |  |
| --- | --- |
| Assessor Certification | |
| Domain Certification | **Platform Certification** |
| Certified for Job Role: “Tank Farm Supervisor” mapped to QP: “LSC/ Q3512, v2.0”. Minimum accepted score is 80% | Recommended that the Assessor is certified for the Job Role: “Assessor”, mapped to the Qualification Pack: “MEP/Q2601”. Minimum accepted score is 80% |

## Assessment Strategy

The emphasis is on ‘learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria. Accordingly, assessment criteria for each job role are set and made available in qualification pack.

The assessment papers for both theory and practical would be developed by Subject Matter Experts (SME) hired by Logistics Sector Skill Council or with the LSC accredited Assessment Agency as per the assessment criteria mentioned in the Qualification Pack. The assessments papers would also be checked for the various outcome-based parameters such as quality, time taken, precision, tools & equipment requirement etc.

Each NOS in the Qualification Pack (QP) is assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Element/Performance Criteria in the NOS is assigned marks on relative importance, criticality of function and training infrastructure.

The following tools would be used for final assessment:

1. **Practical Assessment:** This comprises of a creation of mock environment in the skill lab which is equipped with all equipment required for the qualification pack.

Candidate's soft skills, communication, aptitude, safety consciousness, quality consciousness etc. is ascertained by observation and marked in observation checklist. The outcome is measured against the specified dimensions and standards to gauge the level of their skill achievements.

1. **Viva/Structured Interview:** This tool is used to assess the conceptual understanding and the behavioral aspects with regard to the job role and the specific task at hand. It also includes questions on safety, quality, environment, and equipment etc.
2. **On-Job Training:** OJT would be evaluated based on standard logbook capturing departments worked on, key observations of learner, feedback and remarks of supervisor or mentor.
3. **Written Test:** Question paper consisting of 100 MCQs (Hard:40, Medium:30 and Easy: 30) with questions from each element of each NOS. The written assessment paper is comprised of following types of questions:
   1. True / False Statements
   2. Multiple Choice Questions
   3. Matching Type Questions
   4. Fill in the blanks
   5. Scenario based Questions
   6. Identification Questions

**QA Regarding Assessors:**

Assessors are selected as per the “eligibility criteria” laid down by LSC for assessing each job role. The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to LSC Assessment Framework, competency-based assessments, assessors guide etc. LSC conducts “Training of Assessors” program from time to time for each job role and sensitize assessors regarding assessment process and strategy which is outlined on following mandatory parameters:

* + 1. Guidance regarding NSQF
    2. Qualification Pack Structure
    3. Guidance for the assessor to conduct theory, practical and viva assessments
    4. Guidance for trainees to be given by assessor before the start of the assessments.
    5. Guidance on assessments process, practical brief with steps of operations practical observation checklist and mark sheet
    6. Viva guidance for uniformity and consistency across the batch.
    7. Mock assessments
    8. Sample question paper and practical demonstration

# References

## Glossary

|  |  |
| --- | --- |
| Term | Description |
| Key Learning Outcome | 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). |
| OJT (M) | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site |
| OJT (R) | On-the-job training (Recommended); trainees are recommended the specified hours of training on site |
| Training Outcome | Training outcome is a statement of what a learner will know, understand and be able to do **upon** **the** **completion of the training**. |
| Terminal Outcome | 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 |