Model Curriculum

QP Name: Store Keeper (Petroleum Products)

QP Code: HYC/Q3501

QP Version: 2.0

NSQF Level: 3

Model Curriculum Version: 2.0

Hydrocarbon Sector Skill Council
OIDB Bhawan 2nd Floor,
Tower C, Plot No. 2, Vikas Marg,
Sector – 73, Noida (U.P)

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Training Parameters

Sector	Hydrocarbon
Sub-Sector	Downstream
Occupation	Store Operation
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/4131.0100
Minimum Educational Qualification and Experience	8th Grade Pass with 1-year of relevant experience OR 9th Grade pass OR Grade 8th with one year of National Trade Cetificate (NTC) after 8th
Pre-Requisite License or Training	
Minimum Job Entry Age	18 years
Last Reviewed On	17-11-2022
Next Review Date	Three years from the date of last review date
NSQC Approval Date	
QP Version	2.0
Model Curriculum Creation Date	
Model Curriculum Valid Up to Date	Three years from the date of approval
Model Curriculum Version	2.0
Minimum Duration of the Course	330 Hours
Maximum Duration of the Course	330 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 activities related to receipt of petroleum and allied products at storage facility through pipeline, rail wagon and truck
- Perform storage, issue/dispatch and disposal of petroleum and allied products by following organizational procedures, safety guidelines and environmental norms
- Explain how to maintain records and documents related to receipt and issue/dispatch and storage of petroleum and allied products as per organizational procedures
- Discuss how to follow health, safety procedures during marketing activity
- Discuss how to work effectively with colleagues and other marketing team members

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)	Total Duration
Bridge Module	**06:00**	**Nil**	**Nil**	**06:00**
Module 1: Introduction to Hydrocarbon sector and the job role of Store Keeper	06:00	Nil	Nil	06:00
HYC/ N3112 – Conduct store operations at petroleum storage facility NOS Version No. –2.0 NSQF Level – 3	**45:00**	**60:00**	**15:00**	**120:00**
Module 2: Conduct store operations at storage facility	45:00	60:00	15:00	120:00
HYC/N3113 – Carryout inventory management NOS Version No. – 2.0 NSQF Level – 3	**15:00**	**30:00**	**15:00**	**60:00**
Module 3: Inventory management	15:00	30:00	15:00	60:00
HYC/N9301 – Working effectively in a team NOS Version No. – 3.0 NSQF Level – 4	**12:00**	**30:00**	**00:00**	**42:00**
Module 4: Effective working in a team	12:00	30:00	00:00	42:00
HYC/N9302 – Maintain health, safety and security procedures NOS Version No. – 3.0 NSQF Level – 4	**12:00**	**30:00**	**00:00**	**42:00**
Module 5: Health, safety and security	12:00	30:00	00:00	42:00
DGT/VSQ/N0102 - Employability Skills NOS Version No. – 1.0	**-**	**-**	**-**	**60:00**
Total Duration	**90:00**	**150:00**	**30:00**	**330:00**

Module Details

Module 1: Introduction to Hydrocarbon Sector and the job role of Store Keeper (Petroleum Products)
Bridge Module

Terminal Outcomes:

- Discuss about Hydrocarbon Sector
- Discuss the job role of Store keeper (Petroleum Products)

Duration: 06:00	Duration: 00:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the oil and natural gas sector and its subsectors. • Explain the importance of Store Keeper in a storage facility. • Discuss role and responsibilities of Store Keeper (Petroleum Products).	
Classroom Aids:	
• White / Black board and Projector • Digital Presentation • Computer/Laptop • Public Addressing System	
Tools, Equipment and Other Requirements	
NA	

Module 2: Conduct store operations at storage facility
Mapped to HYC/N3112, v2.0

Terminal Outcomes:

- Demonstrate the procedure of receiving the petroleum products through pipeline, rail tank wagon and tank truck.
- Perform steps to repair and maintain the storage facility.
- Demonstrate the procedure of issuing /dispatching and storing the petroleum products from the storage facility
- Perform steps to check the availability and functioning of fire safety systems and equipment near the storage facility

Duration: 45:00	Duration: 60:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- List various hydrocarbon products utilized in industry. - Describe industry standards, processes, administrative and inward quality control to be followed related to receiving, dispatching and storing of petroleum and allied products. - Explain different quality management systems followed in hydrocarbon industry. - Discuss the importance of confirming quality and quantity of received petroleum and allied products from operation team. - Discuss the necessary precautions to avoid any hazard and accident during unloading of petroleum and allied products. - State the importance of the availability of fire extinguishers near unloading area. - Discuss the details to collect from operation team related to receipt of petroleum and allied products at storage facility. - Discuss the need of maintenance of electrical fittings of storage facility. - List the steps to be performed for repairing and cleaning of the storage facility. - Discuss documents and records needed to be maintained related to petroleum and allied products stored, received and dispatched in the storage facility. - State the importance of monitoring the temperature of storage area and products stored. - Discuss how to identify stored petroleum and allied products through unique code and storage location code.	- Show how to check the receipt of material at storage or project site. - Show how to check the availability of fire extinguishers near unloading area. - Employ appropriate ways to collect details about receipt of petroleum and allied products from operation team. - Apply appropriate ways to check the tank for any leakage or damage. - Show how to conduct maintenance of electrical fittings of storage facility. - Apply appropriate ways to check the tank for any vegetation and leakages or sweating. - Perform the steps to repair any scaling / pitting in the storage facility. - Apply appropriate ways to clean the roof deck to avoid clogging of roof drain sump. - Employ methods to check the earthing and bonding of tank body, electrical continuity from shell to ladder and from ladder to floating roof. - Show how to check that drain valve is closed and isolation valves on expansion line(s)/TSV vent line(s) is open. - Read meters and gauges to monitor the temperature of storage area and products stored. - Demonstrate the organizational specified procedure for marking or labelling the unique codes and storage location code on stored petroleum and allied products. - Perform steps to do packaging of petroleum and allied products as per SOP.

- Recall health and safety norms to follow in stock yard or store building.
- Describe the process of issuing/ dispatching the petroleum product from storage facility.
- Discuss organisational policy for environment safety.
- List different methods of disposing and handling petroleum products safely.
- Discuss the need of availability of fire extinguisher, piping network with fire hydrant and manual type HVLR (High Volume Long Range) monitor near storage facility and loading / unloading area.
- List the steps to be performed for checking the functioning of fire safety system in storage facility.
- Differentiate between fixed foam system or semi-fixed foam system.
- Demonstrate the organisational specified procedure of issuing/ dispatching the petroleum product from storage facility.
- Show how to dispose waste as per organisational and environmental guidelines.
- Apply appropriate ways to check the functioning of auto start facility of fire safety system, installation of fixed foam system or semi-fixed foam system on all kind of tanks and availability of manual type HVLR (High Volume Long Range) monitor in storage area.

Classroom Aids:
White / Black board and Projector, Digital Presentation, Computer/Laptop, Public Addressing System

Tools, Equipment and Other Requirements
Petroleum products, Storage tank, Fire extinguisher, Fire hydrant, Sample log book, HVLR (High Volume Long Range) monitor, maintenance and repairing tools and equipment

Module 3: Inventory Management
Mapped to HYC/N3113, v2.0

Terminal Outcomes:

- Demonstrate use of inventory management software for maintaining stock details and information
- Identify various documents and records need to maintain in the storage facility related to issue/dispatch of petroleum products

Duration: 15:00	Duration: 30:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- State the importance of inventory management, record keeping and documentation. - Recall principle of ordering followed inindustry. - List various inventory management software used in industry. - Explain functioning of inventory management software. - Describe First In First Out (FIFO) and Last In First Out (LIFO) approach. - Discuss ways to analyse the consumption demand and forecasting the stock requirements of petroleum and alliedproducts. - Discuss the importance of maintaining minimum required stock in inventory all the time. - List the steps to be performed for ordering the new stock of petroleum and alliedproducts. - Discuss various documents such as purchase orders, material receipt voucher, excessreport, bin card, stock register, stock identification card etc. related to issue/dispatch of petroleum product need to maintain as per organisational requirements. - Discuss the need and importance of auditing non-usable/expired goods periodically. - Explain the importance of digital literacy. - Explain the RFID tagging and storage management code classification	- Use inventory management software to maintain status of petroleum and allied products stock in inventory. - Show how to update inward and outward details and identify low turnout stock of petroleum and allied products in software. - Apply appropriate methods to analyse the consumption demand of petroleum and allied products and forecasting the stock requirements. - Demonstrate organizational procedure for ordering the new stock of petroleum and allied products. - Prepare records and documents related to damage/loss during the receipt/ dispatch of stock, damage/loss/theft during the receipt/dispatch of stock etc. for the supervisor or concerned authorities. - Show how to conduct internal and external audit of the stock to identify non-usable/expired goods. - Show how to dispose non-usable/expired goods as per organisational and environmental guidelines. - Demonstrate how to classify / analyse inventory
Classroom Aids:	
White / Black board and Projector, Digital Presentation, Computer/Laptop, Public Addressing System	
Tools, Equipment and Other Requirements	
- Sample documents such as Purchase Orders, Material Receipt Voucher, Excess Report, Bin Card, Stock Register, Stock Identification Card etc. - Inventory management software	

Module 4: Effective working in a team
Mapped to HYC/N9301, v3.0

Terminal Outcomes:

- Describe how to interact with others effectively and appropriately
- Demonstrate how to deal with colleagues at workplace

Duration: **12:00**	Duration: **30:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe methods to communicate clearly with the supervisor and reporting authorities. - Explain how to share information in line with organisational requirements. - Explain the organisation's policies and procedures. - Explain how to identify causes of interpersonal conflict at workplace. - Describe ways/methods to resolve interpersonal conflict. - Explain the importance of gender equality. - Explain the importance of supporting and respecting colleagues and other members of the organisation without any bias based on gender, culture, disability etc. - Explain the importance of gender neutral behaviour while interacting with others.	- Demonstrate ways to handle interpersonal conflict at the workplace. - Demonstrate the ways of developing suitable rapport with other team members. - Demonstrate role of marketing agent during emergencies. - Demonstrate how to communicate in a manner that is respectful of gender, culture and disability.
Classroom Aids:	
- White / Black board and Projector - Digital Presentation - Computer/Laptop - Public Addressing System	
Tools, Equipment and Other Requirements	
Dummy team	

Module 5: Health, safety and security
Mapped to HYC/N9302, v3.0

Terminal Outcomes:

- Identify the possible cause of accident and hazards
- Explain how to maintain safety and healthy environment
- Demonstrate how to use PPE kit at workplace

Duration: 12:00	Duration: 30:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain importance of using PPE like face mask, hand gloves, goggle, protective clothing/equipment, etc. at workplace - Explain how to monitor the health and safety of self and other team members - Explain the hazard and risk associated with mishandling various tools and equipment - Discuss safe work practices as per the company's guidelines and procedures - Explain the good housekeeping practices to prevent any hazard - Explain how to record and report all incidents, damages or injury - Explain importance of personal and workplace hygiene - Explain material safety data sheet *(MSDS)*	- Demonstrate how to appropriately wear and discard PPE kit - Demonstrate how to respond promptly and appropriately to an accident - Demonstrate how to administer first aid - Demonstrate various rescue techniques - Demonstrate how to use fire extinguishers - Show the correct way to lift heavy objects. - Demonstrate SOP's, Safety pamphlets, Do & Don't at workplace
Classroom Aids:	
- White / Black board and Projector - Digital Presentation - Computer/Laptop - Public Addressing System	
Tools, Equipment and Other Requirements	
- First aid kit - Dummy for first aid treatment - Housekeeping kit - Personal Protective Equipment (PPE)	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Mechanical / Petroleum	2	-	1	-	Exp in Relevant Field

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for the Job Role: "Store Keeper (Petroleum Products),mapped to QP. HYC/Q3801, v2.0" Minimum accepted score is 80%	"Trainer, MEP/Q2601, v1.0" Minimum accepted score is 80%.

Assessor Requirements

Assessor Prerequisites					
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	*Specialization*	*Years*	*Specialization*	
ITI	Mechanical / Petroleum	2	-	1	-	Exp in Relevant Field

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for the Job Role: "Store Keeper (Petroleum Products), mapped toQP: HYC/Q3801, v2.0" Minimum accepted score is 80%	"Assessor, MEP/Q2701, v1.0" Minimum accepted score is 80%

Assessment Strategy

The assessment of candidates/trainees will be on the basis on assessment outcome/assessment criteria of the Qualification. In the assessment criteria for each NOS marks have been defined for theoretical and practical skills, on which the candidate will be assessed. The emphasis is on ' learning-by-doing' and performance criteria is based on the practical demonstration of skills and knowledge.

Theory/Knowledge test– This section will test the trainee on his/her knowledge on the subject/trade. The test will be carried out online/offline with a set of random Question paper. that include multiple choice questions in multilingual, True/False Statement, audio-video question etc.

The Question Bank will be developed by Subject Matter Experts (SME) of the hydrocarbon sector and these questions again be vetted by the Industry Experts, each performance criteria have its marks for theory based on the level of question i.e. easy, medium and difficult.

Practical/Demonstration Test– This stage involves the face to face interaction between Assessor and each trainee. The practical knowledge will be tested through trade test which demonstrates the skill required for the job, by which assessor would be able to evaluate the trainee for his/her practical knowledge on respective Qualification.

To ensure the maximum possible consistency in the assessment by different assessors at different locations, orientation of the assessors is also required about the stages involved in the assessment and the assessor role in the assessment process. The assessor must have knowledge of the following concepts before assessment:

➢ Qualification Pack Structure
➢ Guidance for the assessor to conduct theory and practical assessments
➢ Guidance for trainees to be given by assessor before the start of the assessments.
➢ Guidance on assessments process, practical brief with steps of operations practical observation checklist
➢ Practical/Demonstration Test guidance for uniformity and consistency.
➢ Guidance on assessment evidence collection (signed attendance copy, verification of the authenticity of the candidate by checking the photo ID card, Photographs-while assessment undergoing etc.)

The empanelled assessment agencies will be instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments. The assessment agencies are instructed to ideally have assessor with sufficient amount of relevant industry experience related to Qualification. The assessors will also have scrutinized and have to undergo orientation of assessment framework, competency-based assessments etc.

Recognition of Prior Learning (RPL)

Under the Recognition of Prior Learning (RPL), the candidates enrolled and the assessment will be carried out as per the assessment criteria and assessment outcome of the full Qualification and the process of assessment will be carry out by the body/bodies empanelled by Hydrocarbon Sector Skill Council

In RPL, the candidate already has the skills and knowledge while working on the job from long, the learners only requires to undergo a brief orientation training and the subsequent assessment process and certification is awarded to those candidates who successfully clears the assessment. The tentative process of RPL would include the flowing stages:

1 Cluster Mapping and Mobilisation of the candidates

2 Counselling & Pre-Screening

4 Candidate registration, batch creation and enrolment

5 conduction of an orientation program for candidates before assessment

7 Assessment by HSSC

8 Evaluation of Assessment Result

9 Issuance of the Certificate to successful candidates

Assessment Strategy:

- For each Qualification Pack assessment criteria has been developed, which describe the weightage for each NOS/Performance criteria (PC) and assigned marks based on each NOS separately for theoretical and practical skills
- The question bank will be developed by the subject matter experts to assess the theoretical and practical knowledge.
- The accredited assessment agency will carry out the assessment process on the date proposed after completion of the training. The assessment will be carried out on the basis of the two parameters i.e. Theoretical test and Practical test.
- The result of the assessment will be shared by assessment body to the HSSC for review and compliance, after that result will be processed and certificates will be generated
- Assessments shall be conducted in the regional languages in case of any specific requirement from the concerned Training Provider.
- For ensuring the impartial assessment it will be ensured that the Assessment Bodies (AB) are not involved in any type of training delivery with respect to this project.

Assessment Guidelines

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 the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score a minimum of 70% of % aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Recommended Pass % aggregate for QP: 50%

References

Glossary

Term	Description
Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualification pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impacton quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements that together specify the technical, generic, professional and organisational specific knowledge that an individual need in order to perform to the required standard.
Organisation alContext	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of them relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. In the context of the OS, these include communication-related skills that are applicable to most job roles.

Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.

Acronyms and Abbreviations

Term	Description
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
OS	Occupational Standard(s)
QP	Qualifications Pack
KU	Knowledge and understanding
GS	Generic Skills