









Warehouse, Inventory and Transport Manager

Electives: Automated Warehouse/ Cold Chain Warehouse/ Dry Bulk Warehouse/ Bonded Warehouse/ Multimodal operations/ Hub and spoke operations

Options: Bid Process Management

QP Code: LSC/Q0105

Version: 1.0

NSQF Level: 6









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LSC/Q0105: Warehouse, Inventory and Transport Manager

Brief Job Description

The individual facilitates and manages warehouse, inventory and transport operations along with in-plant logistics in a manufacturing/ warehousing/ transportation setup. S/he is in charge of business development, performance and profitability of the unit.

Personal Attributes

The individual should have good communication skills, analytical skills and professional values. S/he should be able to help operations team to solve problems and aid management in decision making. The role may require working additional hours from time to time and some physical effort

Applicable National Occupational Standards (NOS)

Compulsory NOS:

- 1. LSC/N0111: Support in warehouse layout design and customs clearance
- 2. LSC/N0116: Manage in-plant logistics
- 3. LSC/N0117: Forecasting, planning and stock keeping
- 4. LSC/N9601: Conduct daily review and facilitate operations
- 5. LSC/N9602: Review performance and develop performance improvement plan
- 6. LSC/N9603: Profit and Loss Account management and cost accounting
- 7. LSC/N9701: Business development and stakeholder relations
- 8. LSC/N9907: Verify and review GST application
- 9. LSC/N9908: Maintain and monitor integrity and ethics in operations
- 10. LSC/N9909: Follow and monitor health, safety and security procedures

Electives(mandatory to select at least one):

Elective 1: Automated Warehouse

This unit is about supporting design of automated warehouse and managing the operations of automated equipment

1. LSC/N0112: Automated warehouse operations









Elective 2: Cold Chain Warehouse

This unit is about supporting design of cold chain warehouse and managing cold chain warehouse operations including sorting, grading, packing, temperature management, compliance to safety and regulation

1. LSC/N0113: Cold chain operations

Elective 3: Dry Bulk Warehouse

This unit is about supporting design of dry bulk warehouse and managing activities including safe storage, loss prevention, space utilisation and volume/weight monitoring

1. LSC/N0114: Dry Bulk warehouse operations

Elective 4: Bonded Warehouse

This unit is about supporting design of bonded warehouse and managing customs operations and compliance to regulations

1. LSC/N0115: Bonded warehouse operations

Elective 5: Multimodal operations

This unit is about managing operation in a multi modal hub that connects two or more different transport terminals

1. LSC/N1007: Manage multimodal operations

Elective 6: Hub and spoke operations

This unit is about managing transport operations in a hub and spoke model transport and warehouse unit

1. LSC/N1008: Manage hub and spoke operations

Options(*Not mandatory*):

Option: Bid Process Management

This unit is about participating in a bid process involving identification of request for proposal (RfP), request for quotation (RfQ), making proposals, technical evaluations, selection of vendors and finalisation of bid process management

1. LSC/N9702: Bid process management









Qualification Pack (QP) Parameters

Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
Country	India
NSQF Level	6
Credits	NA
Aligned to NCO/ISCO/ISIC Code	NCO-2015/1324.1200/4321.0103/1324.0200 and ISCO-88/1324
Minimum Educational Qualification & Experience	Graduate (with relevant experience) with 5-10 Years of experience In Defence or services related to logistics operations OR 12th Class/Diploma (with relevant experience) with 10-15 Years of experience In Defence or services related to logistics operations
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Should be proficient and cleared Level 5
Minimum Job Entry Age	28 Years
Last Reviewed On	04/05/2019
Next Review Date	04/05/2022
NSQC Approval Date	22/08/2019
Version	1.0
Reference code on NQR	2018/TLW/LSC/02440
NQR Version	1.0









LSC/N0111: Support in warehouse layout design and customs clearance

Description

This unit is about support in warehouse designing and interface with custom officials

Scope

This unit/task covers the following:

- Assist in warehouse design
- Coordinate with the customs authoritiesRange: Computer, Enterprise resource planning (ERP), warehouse design software, inventory models, stationery, SOP etc.

Elements and Performance Criteria

Assist in warehouse design

To be competent, the user/individual on the job must be able to:

- **PC1.** identify the type of products and volume to be stored in the warehouse palletised Fast Moving Consumer Goods (FMCG) products, electronics and appliances, automotive and assembly line products, bulk cargo, etc.
- **PC2.** design the process layout, based on the storage requirement of each type of product and for optimum utilisation of Material Handling Equipments (MHE) usage
- **PC3.** ensure stock of fast moving goods are placed near the loading and unloading bays, and slow-moving products at higher levels
- **PC4.** ensure different categories of items are stored in respective places with necessary precautions for storage and retrieval
- **PC5.** ensure hazardous goods are stored as per their storage Standard operating procedure (SOP) requirement and appropriate signages are available
- **PC6.** ensure products are stored at the prescribed temperature levels
- **PC7.** map process flow routes for movement of equipment and personnel within warehouse
- **PC8.** coordinate with technology team in warehouse design and test-run
- **PC9.** evaluate the technology feasibility of proposed design
- PC10. assist top management with performance reporting of new design/processes
- **PC11.** be instrumental during the construction, erection and commissioning of the warehouse and provide the necessary inputs

Assist in warehouse designCoordinating with custom officials

To be competent, the user/individual on the job must be able to:

- **PC12.** coordinate with custom officials, custom brokers, transport brokers, International Air Transport Association (IATA) agents, etc., to assist in custom clearance
- **PC13.** coordinate with customs officers for timely shipment clearance based on documents for clearance
- **PC14.** coordinate with clients in cases of delays, product issues, and custom related documentation issues etc.









Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** organizational process and procedures
- **KU2.** role and responsibilities of workers on the shop floor
- **KU3.** procedures for dealing with loss or damage to goods
- **KU4.** risk and impact of not following defined procedures/work instructions
- **KU5.** nature and characteristics of components in the warehouse
- **KU6.** all relevant safety and security procedures
- **KU7.** entire shop floor activities and persons in charge of each function
- **KU8.** coding system being used by the organization for labelling
- **KU9.** SOPs and how to react in emergencies
- **KU10.** all activities being done in a warehouse
- **KU11.** packing materials and labels that can be used for components of different products and onto each kits
- **KU12.** types of workplace hazards that one can encounter on the job and safe operating practices
- **KU13.** technical specifications of goods in the warehouse
- **KU14.** basics of different types of inventory count methods, inventory storage methods, etc.
- **KU15.** possible difficulties in each warehousing activity and minor oprerational fixes for these difficulties
- **KU16.** different operating and financing models present in the transport and warehousing domains
- **KU17.** basics of different types of products, their estimated shelf life for transporting and requirement of type of vehicle for transportation
- **KU18.** reference documents required in the receiving to put away process such as advanced shipping notice, goods consignment notice, purchase order, commercial invoice, transfer order, packing list, quality certificate, goods receipt note, delivery note and gate pass
- **KU19.** reference documents required in the order to despatch process such as despatch order, stock transport order, pick list, labels, packing list, delivery note, permit document, gate pass, goods consignment note and trip sheet
- KU20. contract management, service level agreements (SLA) and Statement of Work (SOW)
- **KU21.** enterprise ERP software including Warehouse Management System (WMS), Manufacturing Management Systems (MMS) and Transportation Management Software (TMS)
- KU22. tools for documentation: MS excel and MS word
- **KU23.** detailed knowledge of warehouse design and the format of warehouse
- **KU24.** customs rules and regulations
- **KU25.** changes in custom clearance procedures and applicable duties

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read and understand customer orders









- GS2. read and match labels to products kitted
- **GS3.** read management directions
- **GS4.** read work instructions, customer requirement and quality policy
- GS5. read and interpret regulatory requirement associated with custom clearance
- **GS6.** write reports to the staff, senior management, the board of directors
- **GS7.** write the monthly evaluation or a situation analysis and recommendations
- **GS8.** maintain the record as per companys policies
- GS9. communicate clearly in local language or English with management
- **GS10.** provide advice and guidance to peers & juniors
- **GS11.** communicate with clients, customs officials and staff using variety of communication device and medium
- **GS12.** judge the quality of goods
- **GS13.** identify components required to make a product
- **GS14.** decide on actions to be taken on escalation raised by the customer
- **GS15.** make decision about staffing requirement
- **GS16.** liaison with staff, transporters and customs authorities
- **GS17.** estimate time required for each activity
- GS18. make realistic day plans for each activity
- **GS19.** translate plans into targets for each activity
- **GS20.** monitor smooth functioning of all activities
- **GS21.** prioritize and execute tasks in within the scheduled time limits
- GS22. re-assess schedule in case of delays/additional orders
- GS23. understand the customer timelines and ensure that they are met
- **GS24.** prevent company and customer information leakage
- **GS25.** ensure all cargo are custom cleared as per requirement of the customer
- GS26. take prompt action on queries raised by the customer
- **GS27.** ability to rapidly identify and correct errors
- GS28. suggest methods to improve warehousing activities
- **GS29.** respond to customer and staff complaints
- **GS30.** keep contingent plan ready in case of delays or any issue
- **GS31.** identify trends/common causes for errors and suggest possible solutions to management
- **GS32.** analyse communication patterns with colleagues and customers to improve outcomes and deal with situations
- GS33. improve work processes by interacting with others and adopting best practices
- GS34. act upon constructively on any problems as pointed by customers or superiors









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Assist in warehouse design	24	55	-	-
PC1. identify the type of products and volume to be stored in the warehouse - palletised Fast Moving Consumer Goods (FMCG) products, electronics and appliances, automotive and assembly line products, bulk cargo, etc.	3	5	-	-
PC2. design the process layout, based on the storage requirement of each type of product and for optimum utilisation of Material Handling Equipments (MHE) usage	3	5	-	-
PC3. ensure stock of fast moving goods are placed near the loading and unloading bays, and slowmoving products at higher levels	2	5	-	-
PC4. ensure different categories of items are stored in respective places with necessary precautions for storage and retrieval	2	5	-	-
PC5. ensure hazardous goods are stored as per their storage Standard operating procedure (SOP) requirement and appropriate signages are available	2	5	-	-
PC6. ensure products are stored at the prescribed temperature levels	2	5	-	-
PC7. map process flow routes for movement of equipment and personnel within warehouse	2	5	-	-
PC8. coordinate with technology team in warehouse design and test-run	2	5	-	-
PC9. evaluate the technology feasibility of proposed design	2	5	-	-
PC10. assist top management with performance reporting of new design/processes	2	5	-	-
PC11. be instrumental during the construction, erection and commissioning of the warehouse and provide the necessary inputs	2	5	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Assist in warehouse designCoordinating with custom officials	6	15	-	-
PC12. coordinate with custom officials, custom brokers, transport brokers, International Air Transport Association (IATA) agents, etc., to assist in custom clearance	2	5	-	-
PC13. coordinate with customs officers for timely shipment clearance based on documents for clearance	2	5	-	-
PC14. coordinate with clients in cases of delays, product issues, and custom related documentation issues etc.	2	5	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0111
NOS Name	Support in warehouse layout design and customs clearance
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N0116: Manage in-plant logistics

Description

This unit is about the Managing material handling operations and in-plant logistics

Scope

This unit/task covers the following:

- Resource planning
- Receive despatch orders and manage deliveriesRange: Computers, Enterprise resource planning (ERP), Material Handling Equipment (MHEs), inventory models, stationery, Personal Protective Equipment (PPEs)

Elements and Performance Criteria

Resource planning and stock keeping

To be competent, the user/individual on the job must be able to:

- **PC1.** review Material Requirement Plan (MRP) for weekly, monthly, quarterly requirements in coordination with materials department
- **PC2.** review despatch plan/ Distribution Requirement Plan (DRP) for the weekly, monthly and quarterly periods in coordination with sales/despatch department
- **PC3.** analyse budget vis-v-vis actual procurement
- **PC4.** raise indent to the materials department for required items
- **PC5.** plan for material handling & transport vehicles based on the days load for receipt and storage
- **PC6.** approve inbound receipts, deliveries, gate passes
- **PC7.** assist accounts department in approving invoices
- **PC8.** inspect inbound vehicle report regarding material damages, accidents, etc.
- **PC9.** allocate labour and resources for unloading materials and transfer of stock to right storage location
- **PC10.** review the inspection report for the inbound stock
- **PC11.** review and approve supervisors request for storage locations
- **PC12.** approve transfer order in Material Management System (MMS) to manage stock between multiple storage locations
- **PC13.** conduct an inventory count and update the same in the ERP system

Receive despatch orders and manage delivery

To be competent, the user/individual on the job must be able to:

- **PC14.** coordinate with production department for in-plant material requirement
- **PC15.** coordinate with sales/despatch department during material/finished goods/items movement for dispatch
- **PC16.** approve the list of quantities for despatch after assessing the physical quantity for each material present in the warehouse vis-- vis the requirement









- PC17. approve transfer orders, despatch orders and material issue approvals in MMS
- **PC18.** review material despatch orders and allocate labour and MHEs for transfer of the material to the desired department/location
- PC19. conduct periodic wall to wall inventory check and update the ERP

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project acivities
- **KU3.** companys policy and work instructions on quality standards
- **KU4.** companys documentation policy
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- **KU8.** procedures for dealing with loss or damage to goods
- **KU9.** value of items handled and implications of damage/loss of the same
- KU10. risk and impact of not following defined work, safety and security procedures
- **KU11.** company policy defined Turnaround time (TATs) and output metrics for daily operations
- **KU12.** process flow of service operation, value chain and basic supply chain map within the sub sector
- **KU13.** state/country taxes and routing
- KU14. local geographies
- **KU15.** use of ERP software including Warehouse management system (WMS), MMS and Transportation Management System (TMS)
- KU16. use of various tools for documentation: MS excel and MS Word, etc
- **KU17.** just in time (JIT) mode of inventory management
- KU18. basics of statistical and quantitative analysis tools
- **KU19.** use of spreadsheets to tabulate and analyze the data
- **KU20.** structure and implications of fees and charges involved in transportation, warehousing, etc
- **KU21.** transit rules and regulations
- KU22. use of different tools and vehicles used for handling the shipment
- **KU23.** procurement related terminologies: Purchase order (PO), Invoice etc.
- **KU24.** forecasting, planning and developing detailed budgets

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** read companys work instructions, customer requirement and quality policy
- GS2. read legal policies and regulations









- **GS3.** read internal communications memorandums
- **GS4.** read and understand legal documentation part of the shipment/ goods
- **GS5.** read and understand checklists and daily reports
- GS6. information within the ERP
- **GS7.** maintain the record of as per companys policy
- **GS8.** make the note of instructions to team members
- **GS9.** develop operating procedures, improvements and create documents for internal understanding/use
- **GS10.** write communications, letters bith within the company and to other stakeholders and clients
- **GS11.** prepare daily reports, checklists and create documents for internal communication
- **GS12.** communicate with all levels of the people and all external stakeholders
- **GS13.** share experiences and provide guidance to juniors and peers
- **GS14.** communicate on work requirement clearly to all the employees
- **GS15.** listen to queries patiently and answer them aptly
- **GS16.** make judgement regarding allocation of adequate resource based on forecasts and job requirement
- **GS17.** decide on appropriate ways to resolve inefficiency and pilferage issues
- **GS18.** identify and priortise the work flow based on review of the variuous reports
- **GS19.** prioritize and execute the work order within pre-decided timelines
- **GS20.** maintain schedules and punctuality for work process
- **GS21.** plan and forecast for upcoming events, festivals which may create high demand or high absenteeism of human resources
- **GS22.** motivate team members to achieve the targets
- **GS23.** importance and criticality of the materials requests and ensure timeliness to prevent any hindracne to plant operations
- **GS24.** identify trends/common causes for errors and suggest possible solutions
- **GS25.** handle day to day escalated problems like delays, staffing shortage, etc
- **GS26.** delegate work appropriately
- **GS27.** identify and resolve issues due to technical or human error
- **GS28.** analyze the resource requirement in terms of manpower, delivery vehicles, software, system, etc. in line with forecasts
- **GS29.** provide suggestions and methodologies for operational activities in order to increase the productivity of the system and making overall monitoring more effective
- **GS30.** analyse reports and take necessary action
- **GS31.** assess delays or non-performance in daily reporting or closures









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Resource planning and stock keeping	18	52	-	-
PC1. review Material Requirement Plan (MRP) for weekly, monthly, quarterly requirements in coordination with materials department	2	5	-	-
PC2. review despatch plan/ Distribution Requirement Plan (DRP) for the weekly, monthly and quarterly periods in coordination with sales/despatch department	2	5	-	-
PC3. analyse budget vis-v-vis actual procurement	2	4	-	-
PC4. raise indent to the materials department for required items	1	4	-	-
PC5. plan for material handling & transport vehicles based on the days load for receipt and storage	1	4	-	-
PC6. approve inbound receipts, deliveries, gate passes	1	4	-	-
PC7. assist accounts department in approving invoices	1	4	-	-
PC8. inspect inbound vehicle report regarding material damages, accidents, etc.	1	4	-	-
PC9. allocate labour and resources for unloading materials and transfer of stock to right storage location	1	4	-	-
PC10. review the inspection report for the inbound stock	1	4	-	-
PC11. review and approve supervisors request for storage locations	1	4	-	-
PC12. approve transfer order in Material Management System (MMS) to manage stock between multiple storage locations	2	3	-	-
PC13. conduct an inventory count and update the same in the ERP system	2	3	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Receive despatch orders and manage delivery	12	18	-	-
PC14. coordinate with production department for in-plant material requirement	2	3	-	-
PC15. coordinate with sales/despatch department during material/finished goods/items movement for dispatch	2	3	-	-
PC16. approve the list of quantities for despatch after assessing the physical quantity for each material present in the warehouse vis vis the requirement	2	3	-	-
PC17. approve transfer orders, despatch orders and material issue approvals in MMS	2	3	-	-
PC18. review material despatch orders and allocate labour and MHEs for transfer of the material to the desired department/location	2	3	-	-
PC19. conduct periodic wall to wall inventory check and update the ERP	2	3	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0116
NOS Name	Manage in-plant logistics
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N0117: Forecasting, planning and stock keeping

Description

This unit is about the forecasting and planning of requirement and doing stock keeping and inventory counts

Scope

This unit/task covers the following:

- Develop plan for material and distribution requirement
- Monitor stock and perform stock keepingRange: Computers, Enterprise resource planning (ERP),
 Material Handling Equipment (MHEs), Inventory models, stationery, Personal Protective Equipment (PPEs)

Elements and Performance Criteria

Develop plan for material and distribution requirement

To be competent, the user/individual on the job must be able to:

- **PC1.** analyse past trends of material movement and generate Material Requirement Plan (MRP) based on current requirement for weekly, monthly and quarterly demand
- **PC2.** conduct review meetings with production, sales and distribution departments to finalise the forecast and requirement plans

Monitor stock and perform stock keeping

To be competent, the user/individual on the job must be able to:

- PC3. conduct regular inventory count update ERP
- PC4. plan KANBAN and just in time inventory for daily requirement
- **PC5.** review stocks to ensure adequate stock of all items are available and review if KANBAN cards are being changed
- **PC6.** in case of shortages coordinate for timely procurement
- **PC7.** Make necessary arrangements for disposal or quarantine of old or damaged stocks for replacement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- KU2. companys reporting structure to support and expedite project acivities
- **KU3.** companys policy and work instructions on quality standards
- **KU4.** companys documentation policy
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company









- **KU7.** knowledge repository and various projects done by the company
- **KU8.** procedures for dealing with loss or damage to goods
- **KU9.** value of items handled and implications of damage/loss of the same
- **KU10.** risk and impact of not following defined work, safety and security procedures
- KU11. company policy defined Turnaround Time (TATs) and output metrics for daily operation
- **KU12.** process flow of service operation, value chain and basic supply chain map within the sub sector
- **KU13.** use of ERP software including Warehouse management system (WMS), Material Management System (MMS) and Transportation Management System (TMS)
- **KU14.** just in time (JIT) mode of inventory management
- KU15. use of various tools for documentation: MS excel and MS Word, etc.
- **KU16.** statistical and quantitative analysis tools
- **KU17.** use of spreadsheets to tabulate and analyze the data
- **KU18.** structure and implications of fees and charges involved in transportation, warehousing, etc.
- **KU19.** transit rules and regulations
- **KU20.** use of different tools and vehicles used for handling the shipment
- **KU21.** procurement related terminologies: Purchase order (PO), Invoice etc.
- KU22. forecasting, planning and developing detailed budgets

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** read companys work instructions, customer requirement and quality policy
- **GS2.** read legal policies and regulations
- **GS3.** read internal communications memorandums
- **GS4.** read and understand legal documentation part of the shipment/ goods
- **GS5.** read and understand checklists and daily reports
- **GS6.** maintain the record of as per companys policy
- **GS7.** make the note of instructions to team members
- **GS8.** develop operating procedures, improvements and create documents for internal understanding/use
- **GS9.** write communications, letters bith within the company and to other stakeholders and clients
- **GS10.** prepare daily reports, checklists and create documents for internal communication
- **GS11.** communicate with all levels of the people and all external stakeholders
- **GS12.** share experiences and provide guidance to juniors and peers
- **GS13.** communicate on work requirement clearly to all the employees
- **GS14.** listen to queries patiently and answer them aptly
- **GS15.** make judgement regarding approrporate weightage of different factors while determining forecasts
- **GS16.** decide on changes in forecasts and plans based on mid term reviews
- **GS17.** prioritize and prepare plans and budgets within pre-decided timelines









- GS18. maintain schedules and punctuality for work process
- GS19. plan and forecast for upcoming events, festivals which may create high demand
- **GS20.** motivate team members to achieve the targets
- **GS21.** factor in estimated timelines for delivery while preparing forcasts
- **GS22.** be resonsive to the needs and requirements communicated by different departments while preparing plans
- GS23. identify trends/common causes for errors and suggest possible solutions
- **GS24.** handle day to day escalated problems like delays, staffing shortage, etc
- **GS25.** delegate work appropriately
- GS26. identify and resolve issues due to technical or human error
- **GS27.** the user/individual on the job needs to know and understand how to:
- **GS28.** analyze the resource requirement in terms of manpower, delivery vehicles, software, system, etc. in line with forecasts
- **GS29.** provide suggestions and methodologies for operational activities in order to increase the productivity of the system and making overall monitoring more effective
- GS30. analyse reports and take necessary action
- **GS31.** assess delays or non-performance in daily reporting or closures









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Develop plan for material and distribution requirement	10	20	-	-
PC1. analyse past trends of material movement and generate Material Requirement Plan (MRP) based on current requirement for weekly, monthly and quarterly demand	5	10	-	-
PC2. conduct review meetings with production, sales and distribution departments to finalise the forecast and requirement plans	5	10	-	-
Monitor stock and perform stock keeping	20	50	-	-
PC3. conduct regular inventory count update ERP	4	10	-	-
PC4. plan KANBAN and just in time inventory for daily requirement	4	10	-	-
PC5. review stocks to ensure adequate stock of all items are available and review if KANBAN cards are being changed	4	10	-	-
PC6. in case of shortages coordinate for timely procurement	4	10	-	-
PC7. Make necessary arrangements for disposal or quarantine of old or damaged stocks for replacement	4	10	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0117
NOS Name	Forecasting, planning and stock keeping
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N9601: Conduct daily review and facilitate operations

Description

This OS unit is about conducting daily status reviews and facilitating daily operations

Scope

This unit/task covers the following:

- Review status of previous day's work and pending activities
- Approve daily workplans and allocate tasks
- Facilitate smooth operations
- Forecast and budget resources for operations
- Check compliance with legal and regulatory requirementsRange: Computers, Management information system (MIS), Enterprise resource planning (ERP), performance review softwares, budgeting and forecasting softwares

Elements and Performance Criteria

Review status of previous day's work

To be competent, the user/individual on the job must be able to:

- **PC1.** review previous day reports with supervisors identifying pending works
- **PC2.** review inspection and output reports for the previous day
- **PC3.** review and approve pending orders for the previous day
- **PC4.** resolve issues with regards to pending acitivities or escalate them to senior management or external consultant/ technician
- **PC5.** review performance and utilization of budgeted resources making amendments as required *Forecast and budget*

To be competent, the user/individual on the job must be able to:

- **PC6.** analyse trend pattern and make suitable assumptions for forecasting
- **PC7.** prepare forecasts and accordingly plan and budget for workforce and other resources
- **PC8.** set-up consensus meetings with peers and seniors and get their approval on the forecast and budgets
- **PC9.** prepare weekly and monthly work plans as per the forecast and budget
- **PC10.** make amendments in budgeted resources based on daily performance reviews

Approve work plans and allocate tasks

To be competent, the user/individual on the job must be able to:

- **PC11.** identify priority task and inform to supervisors and executives
- **PC12.** approve and share the weekly work plan with supervisors allocating resources as per plan
- PC13. review and approve any ad-hoc request for alternate or additional resources
- **PC14.** approve daily work plan prepared by supervisors

Facilitate smooth operations

To be competent, the user/individual on the job must be able to:









- **PC15.** guide supervisors and executives to resolve any pending issues
- **PC16.** coordinate with other departments and external resources to escalate and expedite stuck cases
- PC17. coordinate with clients and keep them updated in cases of delays, pendency, etc.
- **PC18.** review of work by executives and supervisors to check for errors
- PC19. review reports to monitor operational performance
- PC20. guide the team in use of ERP and available IT infrastructure

Ensure compliance with legal and regulatory framework

To be competent, the user/individual on the job must be able to:

- **PC21.** monitor compliance with relevant local, country and international law and process on a regular basis
- PC22. monitor compliance with respect to organizational policies and procedure

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project acivities
- KU3. companys policy and work instructions on quality standards as well as documentation policy
- **KU4.** importance of the individuals role in the workflow
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- **KU8.** occupational health and safety standards, handling of special and dangerous goods, etc
- **KU9.** procedures for dealing with loss or damage to goods
- **KU10.** value of items handled and implications of damage/loss of the same
- **KU11.** risk and impact of not following defined work, safety and security procedures
- **KU12.** company policy defined TATs and output metrics for daily operations
- **KU13.** just in time (IIT) mode of inventory management
- **KU14.** coding system followed to label items
- **KU15.** the IT system and ERP system of the organization
- **KU16.** process flow of service operation and understanding of basic supply chain value chain
- KU17. state/country taxes and routing
- KU18. local and global geographies
- **KU19.** use of enterprise resource planning software (ERP) and the MIS
- **KU20.** use tools for documentation: MS excel and MS Word, etc.
- **KU21.** basics of statistical and quantitative analysis tools
- **KU22.** structure and implications of fees and charges involved

Generic Skills (GS)









User/individual on the job needs to know how to:

- **GS1.** work instructions, customer requirement and quality policy
- **GS2.** legal policies and regulations
- **GS3.** internal communications memorandums
- **GS4.** checklists and daily reports
- **GS5.** maintain the record of as per companys policy
- **GS6.** make the note of instructions to team members
- **GS7.** develop operating procedures and their updation
- **GS8.** write communications, letters both within the company and to other stakeholders and clients
- **GS9.** prepare daily reports, checklists and create documents for internal communication
- **GS10.** communicate with all internal and external stakeholders
- **GS11.** share experiences and provide guidance to juniors and peers
- GS12. listen to queiries and requirements of internal and external stakeholders









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Review status of previous day's work	8	23	-	-
PC1. review previous day reports with supervisors identifying pending works	2	5	-	-
PC2. review inspection and output reports for the previous day	2	5	-	-
PC3. review and approve pending orders for the previous day	2	5	-	-
PC4. resolve issues with regards to pending acitivities or escalate them to senior management or external consultant/ technician	1	4	-	-
PC5. review performance and utilization of budgeted resources making amendments as required	1	4	-	-
Forecast and budget	9	16	-	-
PC6. analyse trend pattern and make suitable assumptions for forecasting	2	3	-	-
PC7. prepare forecasts and accordingly plan and budget for workforce and other resources	2	3	-	-
PC8. set-up consensus meetings with peers and seniors and get their approval on the forecast and budgets	1	4	-	-
PC9. prepare weekly and monthly work plans as per the forecast and budget	2	3	-	-
PC10. make amendments in budgeted resources based on daily performance reviews	2	3	-	-
Approve work plans and allocate tasks	5	15	-	-
PC11. identify priority task and inform to supervisors and executives	2	3	-	-
PC12. approve and share the weekly work plan with supervisors allocating resources as per plan	1	4	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. review and approve any ad-hoc request for alternate or additional resources	1	4	-	-
PC14. approve daily work plan prepared by supervisors	1	4	-	-
Facilitate smooth operations	6	12	-	-
PC15. guide supervisors and executives to resolve any pending issues	1	2	-	-
PC16. coordinate with other departments and external resources to escalate and expedite stuck cases	1	2	-	-
PC17. coordinate with clients and keep them updated in cases of delays, pendency, etc.	1	2	-	-
PC18. review of work by executives and supervisors to check for errors	1	2	-	-
PC19. review reports to monitor operational performance	1	2	-	-
PC20. guide the team in use of ERP and available IT infrastructure	1	2	-	-
Ensure compliance with legal and regulatory framework	2	4	-	-
PC21. monitor compliance with relevant local, country and international law and process on a regular basis	1	2	-	-
PC22. monitor compliance with respect to organizational policies and procedure	1	2	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9601
NOS Name	Conduct daily review and facilitate operations
Sector	Logistics
Sub-Sector	Terminals, ICDs and CFS, Generic
Occupation	Generic
NSQF Level	6
Credits	TBD
Version	2.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N9602: Review performance and develop performance improvement plan

Description

This unit is about reviewing performance and developing performance improvement plan

Scope

This OS unit/task covers the following:

- Analyse activity wise operational performance
- Identify reasons for non-performance and areas for improvement
- Implement performance improvement action plans
- Provide leadership and directionRange: Standard Operating Procedures (SOP), Management information system (MIS), Enterprise Resource Planning (ERP), worksheets, stationery, computer, projector etc.

Elements and Performance Criteria

Analyse activity wise operational performance

To be competent, the user/individual on the job must be able to:

- **PC1.** analyse activity related performance metrics
- **PC2.** review output reports for escalated cases to identify reasons
- **PC3.** review asset utilization rates and revenue per manpower
- PC4. analyse trend of defaults, delays, etc. along with their reasoning
- **PC5.** analyse the trends of various output metrics like average time per case, average number delays per week, etc. to measure operational performance

Identify reasons for non-performance and areas of improvement

To be competent, the user/individual on the job must be able to:

- PC6. analyse reasons for non-performance with respect to each operation and department
- PC7. identify process improvement areas and departments
- **PC8.** identify training needs and develop training plans
- **PC9.** analyse resource utilization trends to arrive at cases of under-utilization and poor equipment management
- **PC10.** examine staff turnover issues
- **PC11.** identify the department and staffs that are underperforming and take necessary actions to improve performance

Implement performance review action plan

To be competent, the user/individual on the job must be able to:

- **PC12.** prioritise performance improvement project implementation
- **PC13.** develop strategic action plans to increase overall worker and operational efficiency
- **PC14.** communicate performance improvement benefits to senior management and take their approval









- **PC15.** establish key performance indicators, track regular performance output with respect to set goals and take corrective actions
- **PC16.** address all employee performance problems promptly and directly in accordance with personnel policies
- **PC17.** take necessary action in case of theft or fiddling with the shipment

Provide leadership and direction

To be competent, the user/individual on the job must be able to:

- **PC18.** develop, implement, and manage departmental policies, procedures, standards and strategies as required
- **PC19.** set objectives and provide support to team members
- **PC20.** communicate and emphasise on policies and standards in line with the regulations laid down by various governing Acts
- PC21. guide and support them to cope with work load
- **PC22.** conduct meetings with staff to assess groups overall performance; discuss ideas for improvement and inform staff of new developments
- PC23. support team members in identifying, developing and implementing new ideas
- **PC24.** direct the hiring, training, and performance evaluations of staff

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys policy on business ethics and code of conduct
- **KU3.** business and performance of the company
- **KU4.** knowledge repository and various projects done by the company
- **KU5.** reporting structure to support and expedite project acivities
- **KU6.** escalation matrix for reporting issues/challenges
- **KU7.** companys policy and work instructions on quality standards
- **KU8.** companys personnel management and incentives rules
- **KU9.** importance of the individuals role in the workflow
- **KU10.** company policy defined turn around time (TATs) and output metrics for daily operations
- **KU11.** companys approach towards skill up-gradation and technology modernisation
- **KU12.** companys training plans and schedules
- **KU13.** process flow of service operation, value chain and basic supply chain map within the sub sector
- **KU14.** state/country taxes and routing
- **KU15.** local and global geographical knowledge
- **KU16.** use of enterprise resource planning software (ERP)
- **KU17.** use of various tools for documentation: MS excel and MS Word, etc.
- **KU18.** basics of statistical and quantitative analysis tools
- **KU19.** use of spreadsheets to tabulate and analyze the data









- **KU20.** structure and implications of fees and charges involved in transportation, warehousing, etc.
- **KU21.** transit rules and regulations
- **KU22.** significance of team coordination to achieve revenue and productivity targets of the organisation
- **KU23.** customer relationship management and contract management, and service level agreement (SLA)
- KU24. factors for evaluation of operational performance and utilization for resources
- **KU25.** different metrics of performance evaluation
- **KU26.** different solutions to improve performance and utilization

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** company policy and standard work-related documents
- **GS2.** emails, letters and instructions
- GS3. daily reports
- **GS4.** prepare reports on delivery performance, demand forecast, franchisee performance etc.
- **GS5.** write Minutes of Meeting, mails and memos
- **GS6.** interact with team members to work efficiently
- **GS7.** communicate effectively with colleagues and vendors to achieve smooth workflow
- **GS8.** communicate quality standards and performance metrics clearly to all the employees
- **GS9.** listen to gueries patiently and answer them aptly
- **GS10.** plan and organise performance review sessions
- **GS11.** make action plan for performance improvement
- **GS12.** organise projects/ training plans for performance improvement
- **GS13.** monitor the activities of the performance improvement plan
- **GS14.** plan and organise monitoring activities to ensure no breach in terms of commitments
- **GS15.** timely complete analysis on reports and issues identified
- **GS16.** analyse performance with focus on customer requirement and ability to improve satisfaction levels with customers
- **GS17.** sensitise individuals towards customer satisfaction and train them accordingly
- **GS18.** resolve interpersonal issues among employees
- **GS19.** resolve performance related bottlenecks with respect to individuals and resources
- **GS20.** guide staff towards appropriate training to improve performance and remove bottlenecks
- **GS21.** assess resource utilization and performance and suggest solutions to remove bottlenecks
- **GS22.** analyse reports and take necessary action
- **GS23.** analyse output and delivery performance to infer bottlenecks
- **GS24.** assess the performance of resources to see capacity utilization
- GS25. assess performance to see if there is a need for technology up-gradation or training
- **GS26.** improve work processes by adopting global best practices









- **GS27.** resolve recurring inter-personal or system related conflicts with colleagues that hinder service
- **GS28.** act upon constructively on any problems as pointed by seniors
- **GS29.** review performance with respect to requirement and compare with global peers to see prospects for technology and skill up-gradation









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Analyse activity wise operational performance	8	17	-	-
PC1. analyse activity related performance metrics	2	3	-	-
PC2. review output reports for escalated cases to identify reasons	2	3	-	-
PC3. review asset utilization rates and revenue per manpower	2	3	-	-
PC4. analyse trend of defaults, delays, etc. along with their reasoning	1	4	-	-
PC5. analyse the trends of various output metrics like average time per case, average number delays per week, etc. to measure operational performance	1	4	-	-
Identify reasons for non-performance and areas of improvement	8	17	-	-
PC6. analyse reasons for non-performance with respect to each operation and department	1	3	-	-
PC7. identify process improvement areas and departments	2	3	-	-
PC8. identify training needs and develop training plans	2	3	-	-
PC9. analyse resource utilization trends to arrive at cases of under-utilization and poor equipment management	1	2	-	-
PC10. examine staff turnover issues	1	3	-	-
PC11. identify the department and staffs that are underperforming and take necessary actions to improve performance	1	3	-	-
Implement performance review action plan	6	18	-	-
PC12. prioritise performance improvement project implementation	1	3	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. develop strategic action plans to increase overall worker and operational efficiency	1	3	-	-
PC14. communicate performance improvement benefits to senior management and take their approval	1	3	-	-
PC15. establish key performance indicators, track regular performance output with respect to set goals and take corrective actions	1	3	-	-
PC16. address all employee performance problems promptly and directly in accordance with personnel policies	1	3	-	-
PC17. take necessary action in case of theft or fiddling with the shipment	1	3	-	-
Provide leadership and direction	8	18	-	-
PC18. develop, implement, and manage departmental policies, procedures, standards and strategies as required	1	3	-	-
PC19. set objectives and provide support to team members	1	3	-	-
PC20. communicate and emphasise on policies and standards in line with the regulations laid down by various governing Acts	1	3	-	-
PC21. guide and support them to cope with work load	1	2	-	-
PC22. conduct meetings with staff to assess groups overall performance; discuss ideas for improvement and inform staff of new developments	1	3	-	-
PC23. support team members in identifying, developing and implementing new ideas	1	2	-	-
PC24. direct the hiring, training, and performance evaluations of staff	2	2	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9602
NOS Name	Review performance and develop performance improvement plan
Sector	Logistics
Sub-Sector	EXIM logistics, Freight Forwarding & Custom Clearance, Generic
Occupation	Generic
NSQF Level	5
Credits	TBD
Version	2.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N9603: Profit and Loss Account management and cost accounting

Description

This unit is about about Profit and loss account management and cost accounting

Scope

This OS unit/task covers the following:

- Profit and loss account management and review
- Analysis of activity based costsRange: Computers, Management information system (MIS), Enterprise Resource Planning (ERP), performance review softwares

Elements and Performance Criteria

Profit and Loss account management and review

To be competent, the user/individual on the job must be able to:

- **PC7.** periodically analyze the physical output and performance with respect to the budget and identify places for improvements
- **PC8.** undertake adequate risk management so as to meet Key Performance targets
- **PC9.** manage and control budgets of different departments on a periodic basis to optimize financial performance
- **PC1.** review department wise budgets and make amendments if required
- **PC2.** collate and prepare annual budgets along with sales and profit targets
- **PC3.** schedule both capital and operational expenses accordance to the budget
- **PC4.** analyze and review the P&L performance for the unit
- **PC5.** analyze profitability and business performance trends department wise
- **PC6.** periodically analyze variances in the expenditure with respect to the budget and accordingly take corrective actions

Analysis of activity based costs

To be competent, the user/individual on the job must be able to:

- **PC10.** periodically review activity and department financial performance
- **PC11.** identify the activities having high variance with respect to the budgeted costs or the forecasted revenue
- **PC12.** analyze the actual cost w.r.t physical output to draw inferences
- **PC13.** identify reasons in discussion with department and take remedial and corrective actions where-ever required
- **PC14.** work towards rationalizing the cost of the activity wise operations to achieve higher financial goals

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:









- **KU1.** vision, mission and values of the company
- KU2. companys reporting structure to support and expedite project activities
- **KU3.** companys policy and work instructions on quality standards as well as documentation policy
- **KU4.** importance of the individuals role in the workflow
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- **KU8.** occupational health and safety standards, handling of special and dangerous goods, etc.
- **KU9.** procedures for dealing with loss or damage to goods
- **KU10.** value of items handled and implications of damage/loss of the same
- **KU11.** risk and impact of not following defined work, safety and security procedures
- **KU12.** company policy defined TATs and output metrics for daily operations
- KU13. coding system followed to label items
- KU14. IT system and ERP system of the organization
- **KU15.** organizational goal for the year as well as branch/ territory targets
- **KU16.** process flow of service operation and understanding of basic supply chain value chain
- **KU17.** state/country taxes and routing
- KU18. local and global geographies
- KU19. use of enterprise resource planning software (ERP) and the MIS
- **KU20.** use of tools for documentation: MS excel and MS Word, etc.
- KU21. basics of statistical and quantitative analysis tools
- **KU22.** use of spreadsheets to tabulate and analyze the data
- **KU23.** structure and implications of fees and charges involved in transportation, warehousing, processing clearances, etc.
- **KU24.** transit rules and regulations
- **KU25.** working and capacities of different MHEs and other equipment used for handling the shipment
- **KU26.** procurement related concepts like Purchase order (PO), Invoices, procedures etc.
- **KU27.** significance of team coordination to achieve revenue and productivity targets of the organization
- KU28. various techniques for performance improvement and cost accounting
- **KU29.** budgeting exercises

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** companys work instructions, customer requirement and quality policy
- **GS2.** egal policies and regulations
- **GS3.** internal communications memorandums
- **GS4.** written instructions, standard operating procedures









- **GS5.** SOPs and documents required for all operational activities
- **GS6.** inferences drawn from the system reports
- **GS7.** financial statements
- **GS8.** maintain the record of as per companys policy
- **GS9.** make the note of instructions to team members
- GS10. develop operating procedures and update them
- **GS11.** write communications, letters, etc.
- **GS12.** prepare daily reports, checklists
- **GS13.** prepare reports and presentations based on data analytics and ERP reports
- **GS14.** communicate with client, external coordinators, internal staff effectively
- GS15. motivate employees
- **GS16.** share experiences and provide guidance to juniors and peers
- **GS17.** assess business performance to identify need for interventions
- GS18. identify areas for improvement and accordingly suggest remedial action
- **GS19.** identify areas for budget modifications and budget cuts
- **GS20.** decide on ways to improve performance
- **GS21.** plan and organise performance review sessions
- GS22. make action plan for performance improvement
- GS23. organise projects/ training plans for performance improvement
- **GS24.** monitor the activities of the performance improvement plan
- **GS25.** sensitive employees towards customer requirements
- **GS26.** focus on customer satisfaction as a key part of the performance review
- **GS27.** identify reasons for variances and resolve them in discussion with team and management
- **GS28.** suggest new technologies, capital purchases, operational strategies to enhance operational and financial performance
- **GS29.** analyze reasons for variances across departments
- **GS30.** compare with past trends to see if it is seasonal or cyclical in nature
- GS31. identify areas that are crucial for improvement and accordingly revisit budgets
- **GS32.** assess the financial performance and make strategic decisions regarding budgets, focus areas
- **GS33.** motivate and ensure output so as to achieve financial goals









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Profit and Loss account management and review	20	45	-	-
PC7. periodically analyze the physical output and performance with respect to the budget and identify places for improvements	2	5	-	-
PC8. undertake adequate risk management so as to meet Key Performance targets	2	5	-	-
PC9. manage and control budgets of different departments on a periodic basis to optimize financial performance	2	5	-	-
PC1. review department wise budgets and make amendments if required	3	5	-	-
PC2. collate and prepare annual budgets along with sales and profit targets	3	5	-	-
PC3. schedule both capital and operational expenses accordance to the budget	2	5	-	-
PC4. analyze and review the P&L performance for the unit	2	5	-	-
PC5. analyze profitability and business performance trends department wise	2	5	-	-
PC6. periodically analyze variances in the expenditure with respect to the budget and accordingly take corrective actions	2	5	-	-
Analysis of activity based costs	10	25	-	-
PC10. periodically review activity and department financial performance	2	5	-	-
PC11. identify the activities having high variance with respect to the budgeted costs or the forecasted revenue	2	5	-	-
PC12. analyze the actual cost w.r.t physical output to draw inferences	2	5	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. identify reasons in discussion with department and take remedial and corrective actions where-ever required	2	5	-	-
PC14. work towards rationalizing the cost of the activity wise operations to achieve higher financial goals	2	5	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9603
NOS Name	Profit and Loss Account management and cost accounting
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N9701: Business development and stakeholder relations

Description

This unit is about generating new business and maintaining relation with all stakeholders

Scope

This unit/task covers the following:

- Generate new business prospects
- Maintain customer relations
- Coordinate with government officials, vendors and contractors Range: Instructional material, safety guidelines, safety signs, computer, projector etc.

Elements and Performance Criteria

Generate new business prospects

To be competent, the user/individual on the job must be able to:

- **PC9.** update information into ERP, inform the relevant departments on sale closure
- **PC1.** obtain list of existing clients and new prospects from the company's sales database.
- **PC2.** prepare sales targets and relationship strategies
- **PC3.** prioritize the clients for contacting, based on the previous relationship building calls made to each of them
- PC4. call clients and prospects to seek meeting
- PC5. meet client to offer new services and take feedback for current services
- **PC6.** identify clients business need and offer customized and bundled solutions
- **PC7.** negotiate on costs, close the deal and collect organizational and payment details of the client
- **PC8.** take client's feedback

Maintain customer relations

To be competent, the user/individual on the job must be able to:

- **PC10.** regularly interact with the client over phone, emails or personal visits and quickly respond to their queries
- PC11. address the query raised by the customers effectively and timely
- **PC12.** take appropriate actions on escalations raised by customers
- **PC13.** handle customer grievances such as damage or tampering of shipment, extra charges levied, failure to deliver as per commitment, delays etc.
- **PC14.** provide regular information to clients regarding new offerings, discounts, customised solutions, etc.

Co-ordinate with government officials, vendors and contractors

To be competent, the user/individual on the job must be able to:

- **PC15.** liaise with customs, Partner Government Agencies (PGAs), other Govt. departments, etc. and build professional relations with them
- **PC16.** analyse and manage insurance claim requests









- **PC17.** co-ordinate with marketing agencies for publicity of services of the company
- **PC18.** negotiate with carriers, warehouse and transport operators, custom brokers, insurance company representatives, vendors, etc. for services, preferential rates, service level agreements (SLA), payment period, etc.
- **PC19.** co-ordinate with labour contractor and local vendors for sufficient workforce, carrier vehicle availability as per work demand

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project acivities
- **KU3.** companys policy and work instructions on quality standards and documentation policy
- **KU4.** importance of the individuals role in the workflow
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- KU8. occupational health and safety standards and handling of dangerous and special goods
- **KU9.** procedures for dealing with loss or damage to goods
- **KU10.** value of items handled and implications of damage/loss of the same
- **KU11.** risk and impact of not following defined work, safety and security procedures
- **KU12.** company policy defined Turn Around Time (TATs) and output metrics for daily operations
- **KU13.** just in time (JIT) mode of inventory management
- **KU14.** coding system followed to label items
- **KU15.** the Information Technology(IT) system and Enterprise resource planning (ERP) system of the organization
- **KU16.** process flow of service operation, value chain and basic supply chain value map within the sub sector
- **KU17.** state/country taxes and routing
- **KU18.** local and global geographical knowledge
- **KU19.** use of ERP software including Warehouse Management System (WMS), Material Management System (MMS) and Transport Management System (TMS)
- **KU20.** use of tools for documentation: MS excel and MS Word, etc.
- **KU21.** basics of statistical and quantitative analysis tools
- **KU22.** use of spreadsheets to tabulate and analyze the data
- **KU23.** structure and implications of fees and charges involved in transportation, warehousing, etc.
- **KU24.** transit rules and regulations
- **KU25.** significance of team coordination to achieve revenue and productivity targets of the organisation
- **KU26.** customer relationship management
- KU27. about contract management and SLA









KU28. factors for evaluation of performance of vendors

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** company quality policy, work instructions and customer requirement
- **GS2.** transit rules and trade policies
- **GS3.** regulatory requirement associated with custom clearance
- **GS4.** e-mails, invoices, letters, notes, memos, agreement reports, etc.
- **GS5.** write e-mails and letters to government officials, customers, vendors, etc.
- **GS6.** note information about vendors on factors like quality of service,on-time order completion, cooperation etc
- **GS7.** listen to the requirements of the client
- **GS8.** communicate with clients, government officials and other external stakeholders by using various communication channels
- **GS9.** exchange information with other managers, supervisory and operational staff at all levels
- **GS10.** carefully listen to vendor concerns and issues
- **GS11.** decide on corrective measures to improve customer ratings
- **GS12.** decide on actions to be taken on escalations raised by the customer
- **GS13.** decide appropriate action for poor performance and lack of cooperation by vendor/ Third-party logistics (3PL)
- **GS14.** identify and prioritise on select clients and prospects for generating business
- **GS15.** liaison with customers, government officials, vendors and staff to ensure that smooth functioning of service centre/office
- **GS16.** plan and organise review meetings with vendors, contractors
- **GS17.** organise projects/ training plans for performance improvement
- **GS18.** take prompt action on gueries raised by the customer
- **GS19.** understand customer requirement and offer customised or bundled solutions
- **GS20.** suggest ideas and solutions to increase customer loyalty and satisfaction
- **GS21.** resolve the queries raised by customers as well as government officals
- **GS22.** address the queries raised by vendors, contractors and other external stakeholders that are not resolved by supervisor and executives
- **GS23.** identify the factors which improved the customer satisfaction as well as ratings of the organisation
- **GS24.** identify bundles and customisations that cater to the requirement of majority of customers
- **GS25.** analyse key reasons for non-performance and customer dis-satisfaction
- **GS26.** identify key areas that are crucial for performance improvement
- **GS27.** improve work processes by adopting best practices with respect to quality of service to the customers
- **GS28.** act upon constructively on any problems as pointed by customers, vendors or government officials









GS29. handle personality clashes effectively









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Generate new business prospects	14	36	-	-
PC9. update information into ERP, inform the relevant departments on sale closure	1	4	-	-
PC1. obtain list of existing clients and new prospects from the company's sales database.	2	4	-	-
PC2. prepare sales targets and relationship strategies	2	4	-	-
PC3. prioritize the clients for contacting, based on the previous relationship building calls made to each of them	2	4	-	-
PC4. call clients and prospects to seek meeting	2	4	-	-
PC5. meet client to offer new services and take feedback for current services	2	4	-	-
PC6. identify clients business need and offer customized and bundled solutions	1	4	-	-
PC7. negotiate on costs, close the deal and collect organizational and payment details of the client	1	4	-	-
PC8. take client's feedback	1	4	_	-
Maintain customer relations	6	19	-	-
PC10. regularly interact with the client over phone, emails or personal visits and quickly respond to their queries	1	4	-	-
PC11. address the query raised by the customers effectively and timely	1	4	-	-
PC12. take appropriate actions on escalations raised by customers	1	4	-	-
PC13. handle customer grievances such as damage or tampering of shipment, extra charges levied, failure to deliver as per commitment, delays etc.	1	4	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. provide regular information to clients regarding new offerings, discounts, customised solutions, etc.	2	3	-	-
Co-ordinate with government officials, vendors and contractors	10	15	-	-
PC15. liaise with customs, Partner Government Agencies (PGAs), other Govt. departments, etc. and build professional relations with them	2	3	-	-
PC16. analyse and manage insurance claim requests	2	3	-	-
PC17. co-ordinate with marketing agencies for publicity of services of the company	2	3	-	-
PC18. negotiate with carriers, warehouse and transport operators, custom brokers, insurance company representatives, vendors, etc. for services, preferential rates, service level agreements (SLA), payment period, etc.	2	3	-	-
PC19. co-ordinate with labour contractor and local vendors for sufficient workforce, carrier vehicle availability as per work demand	2	3	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9701
NOS Name	Business development and stakeholder relations
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N9907: Verify and review GST application

Description

This unit is about verifying and reviewing GST application

Scope

This unit/task covers the following:

- Check invoice
- Process complianceRange: Laptop, MS office, Enterprise Resource Planning (ERP), stationery, worksheets, computer, projector, Goods and Services Tax (GST) guidelines etc.

Elements and Performance Criteria

Check invoice

To be competent, the user/individual on the job must be able to:

- **PC1.** verify and approve daily invoicing
- **PC2.** check for errors in calculating taxable value and tax value after applying applicable rate of GST
- **PC3.** check if that Integrated Goods and Services Tax (IGST) is chargeable on the invoices raised for export of goods/services

Process compliance

To be competent, the user/individual on the job must be able to:

- **PC4.** check if GST is payable under reverse charge in case of unregistered party
- **PC5.** verify and approve separate notification in case of exemption
- **PC6.** review and approve vendor invoices and ensure that all the mandatory particulars are mentioned on the invoice
- **PC7.** verify if the goods/services are procured from registered vendor
- **PC8.** check for pending litigation cases under earlier regime
- **PC9.** review sales invoice and check if record is maintained properly
- **PC10.** coordinate with finance department for any updating in GST law
- **PC11.** check that the payment received from the client is including applicable taxes
- **PC12.** assist in verifying and reviewing monthly returns
- PC13. monitor maintenance record of taxes paid and acknowledgment of the returns filed

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** reporting structure to support and expedite project acivities
- **KU2.** companys policy and work instructions on quality standards
- **KU3.** companys products and services









- **KU4.** organisational guidelines for dealing with receipts and payments
- **KU5.** companys policy on mode of receipts
- **KU6.** companys policy on processes and methods of collection and payments
- **KU7.** basic accounting principles and financial concepts such as calculation of interest
- **KU8.** concept and applicability of GST
- **KU9.** bifurcation of taxes
- **KU10.** invoicing including credit and debit note
- **KU11.** filing of monthly returns
- **KU12.** reverse charge mechanism
- **KU13.** refund process
- **KU14.** use of MS office (excel, word)
- KU15. Central Goods and Service Tax (CGST) Act, 2017 (preferable not mandatory)

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** various accounting procedures and updates
- **GS2.** forms and policy directives
- **GS3.** mails and answer auditors queries
- **GS4.** coordinate with colleagues and seniors to obtain required information
- **GS5.** decide on applicability of taxes
- **GS6.** decide on correction required for invoice and other documents
- **GS7.** plan and organise information for auditing process
- **GS8.** check that tax deducted is correct
- GS9. inform about any errors or refunds to be sought and extra taxes to be paid
- **GS10.** resolve tax related issues
- **GS11.** analyse tax norms and accounting information
- **GS12.** check for error in invoice
- GS13. avoid penalties to organisation for inadequate reporting









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Check invoice	11	13	-	-
PC1. verify and approve daily invoicing	4	4	-	-
PC2. check for errors in calculating taxable value and tax value after applying applicable rate of GST	4	4	-	-
PC3. check if that Integrated Goods and Services Tax (IGST) is chargeable on the invoices raised for export of goods/services	3	5	-	-
Process compliance	29	47	-	-
PC4. check if GST is payable under reverse charge in case of unregistered party	4	4	-	-
PC5. verify and approve separate notification in case of exemption	3	5	-	-
PC6. review and approve vendor invoices and ensure that all the mandatory particulars are mentioned on the invoice	3	5	-	-
PC7. verify if the goods/services are procured from registered vendor	2	4	-	-
PC8. check for pending litigation cases under earlier regime	3	5	-	-
PC9. review sales invoice and check if record is maintained properly	3	5	-	-
PC10. coordinate with finance department for any updating in GST law	3	5	-	-
PC11. check that the payment received from the client is including applicable taxes	2	4	-	-
PC12. assist in verifying and reviewing monthly returns	3	5	-	-
PC13. monitor maintenance record of taxes paid and acknowledgment of the returns filed	3	5	-	-
NOS Total	40	60	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9907
NOS Name	Verify and review GST application
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N9908: Maintain and monitor integrity and ethics in operations

Description

This unit is about maintaining integrity, ensuring data security, and professional and ethical practice

Scope

This OS unit/task covers the following:

- Maintain integrity and ensure data security
- Professional and ethical practice
- Ensure regulatory complianceRange: Standard Operating Procedures (SOP), worksheets, computer, projector, printer, display board and markers

Elements and Performance Criteria

Maintain integrity ensuring data security

To be competent, the user/individual on the job must be able to:

- **PC1.** refrain from indulging in corrupt practices
- **PC2.** protect customers information and ensure acquired information is not used for personal advantage
- **PC3.** protect data and information related to business or commercial decisions

Professional and ethical practice

To be competent, the user/individual on the job must be able to:

- **PC4.** sensitise the work force towards ethical behaviour in work place and performing job with integrity
- **PC5.** conduct regular reviews and check reports for unethical behaviour and corrupt practices
- **PC6.** consult senior management when in an ethical dilemma
- **PC7.** report promptly all violations of code of ethics
- **PC8.** dress up and conduct in a professional manner
- **PC9.** communicate with clients and stakeholders in a soft and polite manner
- **PC10.** follow etiquettes

Ensure regulatory compliance

To be competent, the user/individual on the job must be able to:

- **PC11.** check that that documentation with respect to operations is up to date and in accordance to the regulations
- **PC12.** coordinate with regulatory authorities and assist in inspections and clearances
- **PC13.** report any issues with regulatory compliance

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:









- **KU1.** companys policies on use of language
- KU2. companys Human Resources policies
- **KU3.** companys code of ethics and business
- KU4. companys whistle blower policy
- KU5. companys rules related to sexual harassment
- **KU6.** companys reporting structure
- **KU7.** companys documentation policy
- **KU8.** principles of code of ethics and business ethics
- **KU9.** different regulations and acts that are applicable for the sub-sector and logistics sector as a whole
- KU10. understand the documentary compliance required for different type of products

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** policy documents and work related documents
- **GS2.** emails letters and communications
- **GS3.** acts and regulations
- **GS4.** instructions, communications to internal staff
- **GS5.** emails and letters
- **GS6.** reports
- **GS7.** interact with internal and external stakeholders
- GS8. communicate with peers and subordinates
- **GS9.** take appropriate action in a vulnerable situation
- **GS10.** identify breaches and take necessary actions
- **GS11.** identify documentary requirement for a specific product or regulation and take necessary action
- **GS12.** plan and organise steps/ actions as per companys guidelines, if any violation of code of ethics is noticed in the company
- **GS13.** plan and organise training sessions, sensitization sessions for work force
- **GS14.** plan review meetings to monitor compliance with ethics and regulations
- **GS15.** prevent company and customer information leakage
- **GS16.** provide proper advice or guidance to colleagues to deal with sensitive issue
- GS17. suggest solutions to managers and workers when in an ethical dilemma
- **GS18.** identify conflict of interests and take necessary actions
- **GS19.** review reports to identify common trends of defaults
- GS20. conduct review to analyse the reasons for default
- GS21. check that all regulatory compliances are adhered to
- **GS22.** check that any unethical behaviour gets captured before a damage or negative impact happens









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintain integrity ensuring data security	9	15	-	-
PC1. refrain from indulging in corrupt practices	3	5	-	-
PC2. protect customers information and ensure acquired information is not used for personal advantage	3	5	-	-
PC3. protect data and information related to business or commercial decisions	3	5	-	-
Professional and ethical practice	22	33	-	-
PC4. sensitise the work force towards ethical behaviour in work place and performing job with integrity	3	5	-	-
PC5. conduct regular reviews and check reports for unethical behaviour and corrupt practices	3	5	-	-
PC6. consult senior management when in an ethical dilemma	3	5	-	-
PC7. report promptly all violations of code of ethics	3	5	-	-
PC8. dress up and conduct in a professional manner	3	5	-	-
PC9. communicate with clients and stakeholders in a soft and polite manner	3	5	-	-
PC10. follow etiquettes	4	3	-	-
Ensure regulatory compliance	9	12	-	-
PC11. check that that documentation with respect to operations is up to date and in accordance to the regulations	3	4	-	-
PC12. coordinate with regulatory authorities and assist in inspections and clearances	3	4	-	-
PC13. report any issues with regulatory compliance	3	4	-	-









Assessment Criteria for Outcomes	Theory	Practical	Project	Viva
	Marks	Marks	Marks	Marks
NOS Total	40	60	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9908
NOS Name	Maintain and monitor integrity and ethics in operations
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N9909: Follow and monitor health, safety and security procedures

Description

This unit is about ensuring compliance with health, safety and security procedures at the workplace.

Scope

This unit/task covers the following:

- Follow health, safety and security procedures
- Ensure compliance to health, safety and securityRange: Personal Protective Equipment (PPE), Material Handling Equipment (MHE), instructional material, safety guidelines, safety signs, computer, projector etc.

Elements and Performance Criteria

Follow health, safety and security procedures

To be competent, the user/individual on the job must be able to:

- **PC1.** make note of all safety processes with reference to area of operation
- **PC2.** wear all PPE such as goggles, ear plugs, helmet, mask, shoes, etc. as applicable
- **PC3.** follow organizational protocol to deploy action in case of signs of any emergency situation or accident or breach of safety
- **PC4.** undertake periodical preventive health check ups
- PC5. follow necessary SOP and precautions while handling dangerous and hazardous goods
- **PC6.** follow security procedures like green gate in port, customs area, factory security, etc.
- **PC7.** comply with data safety regulations of the organisation
- **PC8.** instruct the loaders/unloaders to follow standard safety procedures while handling hazardous/fragile cargo and to walk only on the designated pathway

Ensure compliance to health, safety and security

To be competent, the user/individual on the job must be able to:

- **PC9.** recognise unsafe conditions and safety practices at the workplace and report it to concerned authority
- PC10. implement 5S at workplace
- **PC11.** inspect the activity area and equipment for appropriate and safe condition
- **PC12.** check if stacking is done at defined height and is not on the walk way
- **PC13.** check if walk way is free from grease/ oil
- **PC14.** check if emergency fire alarms, water sprinklers and smoke detectors are installed at all places
- PC15. participate in fire drills
- **PC16.** check if standard material handling procedure are being followed
- **PC17.** check if cargo has passed security checks and report in case of any violation

Knowledge and Understanding (KU)









The individual on the job needs to know and understand:

- **KU1.** health, safety and security policies and procedures
- **KU2.** Special instructions for hazardous cargo handling
- **KU3.** defined standard operating procedures
- **KU4.** risk and impact of not following defined procedures/work instructions with reference to health, safety and security operations
- **KU5.** escalation matrix for reporting identified problem
- **KU6.** basics of Occupational Safety and Health Administration (OSHA)
- **KU7.** 5S implementation and practice
- **KU8.** necessary security procedures for airport, customs area, etc.
- **KU9.** tools and equipment for material handling
- **KU10.** standard material handling procedures while handling cargo
- **KU11.** safety and security signage and their functions
- **KU12.** knowledge of security tags, labels and signage
- **KU13.** handling procedure for hazardous / fragile cargo
- KU14. security procedures for dangerous / hazardous goods
- **KU15.** different PPE, their usage and purpose
- KU16. safe driving techniques

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** various procedures and standards related to health, safety and security
- **GS2.** various documents related to security and movement of cargo
- **GS3.** fill forms related to health, safety and security procedures
- **GS4.** communicate clearly with colleagues regarding safety procedures
- **GS5.** share experience and provide guidance to peers
- **GS6.** make a judgment as to what actions to be taken to avoid any damage / accident to personal health / cargo handled
- **GS7.** act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations
- **GS8.** plan clearance of cargo in manner that it does hamper the safety of the cargo and the loader/unloader
- **GS9.** prioritize and execute tasks within the schedule time limits
- **GS10.** Plan emergency drills, fire drills and inspections
- **GS11.** ensure safe and secure movement of packages, cargos etc.
- **GS12.** identify any threats on personal health, safety, security, etc. and take appropriate actions
- **GS13.** identify risks at the workplace and address them
- **GS14.** analyse past mistakes and address them to avoid mishap in the future
- **GS15.** ensure right safety measures and procedures are in place









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Follow health, safety and security procedures	16	30	-	-
PC1. make note of all safety processes with reference to area of operation	2	4	-	-
PC2. wear all PPE such as goggles, ear plugs, helmet, mask, shoes, etc. as applicable	2	4	-	-
PC3. follow organizational protocol to deploy action in case of signs of any emergency situation or accident or breach of safety	2	4	-	-
PC4. undertake periodical preventive health check ups	2	3	-	-
PC5. follow necessary SOP and precautions while handling dangerous and hazardous goods	2	4	-	-
PC6. follow security procedures like green gate in port, customs area, factory security, etc.	2	4	-	-
PC7. comply with data safety regulations of the organisation	2	3	-	-
PC8. instruct the loaders/unloaders to follow standard safety procedures while handling hazardous/fragile cargo and to walk only on the designated pathway	2	4	-	-
Ensure compliance to health, safety and security	24	30	-	-
PC9. recognise unsafe conditions and safety practices at the workplace and report it to concerned authority	2	4	-	-
PC10. implement 5S at workplace	2	4	-	-
PC11. inspect the activity area and equipment for appropriate and safe condition	2	4	-	-
PC12. check if stacking is done at defined height and is not on the walk way	3	3	-	-
PC13. check if walk way is free from grease/ oil	3	3	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. check if emergency fire alarms, water sprinklers and smoke detectors are installed at all places	3	3	-	-
PC15. participate in fire drills	3	3	-	-
PC16. check if standard material handling procedure are being followed	3	3	-	-
PC17. check if cargo has passed security checks and report in case of any violation	3	3	-	-
NOS Total	40	60	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9909
NOS Name	Follow and monitor health, safety and security procedures
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N0112: Automated warehouse operations

Description

This unit is about managing operations using automated warehousing techniques

Scope

This unit/task covers the following:

- Support design of automated warehouse
- Manage automated warehouse operationsRange: computers, Enterprise resource planning (ERP), inventory models, stationery

Elements and Performance Criteria

Support design of automated warehouse

To be competent, the user/individual on the job must be able to:

- **PC1.** understand the types of products being stored, their volume, turn-around time and other business requirements of the warehouse
- **PC2.** coordinate with designers to design the entire overall layout of automated warehouse considering the business and operational requirement
- **PC3.** provide inputs for layout and usage of automated devices such as Automatic Storage and Retrieval Systems (ASRS), automated racking, Automated Guided Vehicle (AGV), automated packaging system, robotic palletisation and depalletization, product profiling systems, product identification systems and other equipment to be used
- **PC4.** provide inputs for design of conveyor movement incorporating horizontal and vertical movement, merging of conveyors, and sorting systems
- **PC5.** suggest routes for movement of AGV and other Material Handling Equipment (MHE)
- **PC6.** ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth and collision free movement
- **PC7.** assist in design and selection of storage racks and pallets to ensure easy access by automated equipment
- **PC8.** support in designing the grid of Radio frequency identification (RFIDs), and bar codes to map the entire warehouse

Manage automated equipment operations

To be competent, the user/individual on the job must be able to:

- **PC9.** ensure correct usage of automated and computerised systems as per Standard Operating Procedure (SOP)
- **PC10.** conduct regular inspection to ensure that all equipment is functional
- **PC11.** supervise the maintenance of automated warehouse equipment
- **PC12.** ensure maximum utilisation of warehouse assets
- **PC13.** provide inputs for re-design of automated warehouse equipment in case of change in process/product
- **PC14.** conduct regular review regarding challenges being faced, accidents, system failures, etc.









Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project acivities
- **KU3.** companys policy and work instructions on quality standards as well as documentation policy
- **KU4.** importance of the individuals role in the workflow
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- **KU8.** occupational health and safety standards, handling of special and dangerous goods, etc.
- **KU9.** procedures for dealing with loss or damage to goods
- **KU10.** value of items handled and implications of damage/loss of the same
- **KU11.** risk and impact of not following defined work, safety and security procedures
- **KU12.** company policy defined Turnaround time (TATs) and output metrics for daily operations
- KU13. coding system followed to label items
- KU14. the Information Technology (IT) system and ERP system of the organization
- **KU15.** process flow of service operation and understanding of basic supply chain value chain
- **KU16.** state/country taxes and routing
- KU17. local and global geographies
- **KU18.** just in time (JIT) mode of inventory management
- **KU19.** use of ERP software (ERP) including Warehouse management system (WMS), Transportation Management System (MMS) and Transportation Management System (TMS)
- KU20. use tools for documentation: MS excel and MS Word, etc.
- **KU21.** basic understanding of statistical and quantitative analysis tools
- **KU22.** use of spreadsheets to tabulate and analyze the data
- **KU23.** structure and implications of fees and charges involved in transportation, warehousing, processing clearances, etc.
- **KU24.** transit rules and regulations
- **KU25.** basics about different MHEs and other equipment used for handling the shipment
- **KU26.** procurement related concepts like Purchase order (PO), Invoices, procedures etc.
- **KU27.** Identify and understand the capacity and usage of different MHEs
- **KU28.** usage of different information processing devices like barcode scanners, RFID scanners, etc.
- **KU29.** types of workplace hazards that one can encounter on the job and safe operating practices
- **KU30.** all activities being done in a warehouse
- **KU31.** shop floor operations and material planning
- **KU32.** automated warehouse and its operations
- KU33. different inventory management systems as well as counting methods
- **KU34.** technical specifications of goods in the warehouse
- **KU35.** possible difficulties in each warehousing activity









Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** work instructions, customer requirement and quality policy
- **GS2.** legal policies and regulations
- **GS3.** internal communications memorandums
- **GS4.** legal documentation part of the shipment/goods
- **GS5.** checklists and daily reports
- **GS6.** letters, emails and communication notices
- **GS7.** notes about accidents, damage to components received
- **GS8.** instructions for supervisors and staff
- **GS9.** daily reports regarding updates and reviews
- **GS10.** communicate clearly with management
- **GS11.** provide advice and guidance to peers & juniors
- **GS12.** communicate with workers for delays and updates in schedules
- **GS13.** judge the quality of goods receipt
- **GS14.** identify components required to make a product based on requests
- **GS15.** assess the warehouse design based on product category and technical limitations
- **GS16.** liaison with customers, government officials, vendors and staff
- **GS17.** plan and organise review meetings with vendors, contractors
- **GS18.** organise projects/ training plans for performance improvement
- **GS19.** take prompt action on queries raised by the customer
- **GS20.** design the layout in accordance to the customer requirement
- **GS21.** resolve system and operational issues either interally or by escalating to relevant authority
- **GS22.** address the queries raised by vendors, contractors and other external stakeholders
- **GS23.** identify trends/common causes for errors and suggest possible solutions
- **GS24.** identify areas of inefficiencies and plan to curb the inefficiencies
- GS25. handle day to day escalated problems like delays, staffing shortage, external factors, etc
- **GS26.** delegate work appropriately
- GS27. identify and resolve issues due to technical or human error
- **GS28.** analyze the resource requirement in terms of manpower, delivery vehicles, software, system, etc. while designing layouts and shift reviews
- **GS29.** provide suggestions and methodologies and implement them for operational activities in order to increase the productivity of the system and making overall monitoring more effective
- **GS30.** analyse reports and take necessary action
- **GS31.** assess delays or non-performance in daily reporting or closures
- **GS32.** identify key areas that are crucial for performance improvement
- **GS33.** think tactically, with attention to details
- **GS34.** design and plan warehouse layout and operations with a futuristic approach









- **GS35.** improve work processes by adopting global best practices
- **GS36.** think through on different queries and escalations and quickly identify possible solutions and work-around
- **GS37.** handle personality clashes









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Support design of automated warehouse	16	42	-	-
PC1. understand the types of products being stored, their volume, turn-around time and other business requirements of the warehouse	2	6	-	-
PC2. coordinate with designers to design the entire overall layout of automated warehouse considering the business and operational requirement	2	6	-	-
PC3. provide inputs for layout and usage of automated devices such as Automatic Storage and Retrieval Systems (ASRS), automated racking, Automated Guided Vehicle (AGV), automated packaging system, robotic palletisation and depalletization, product profiling systems, product identification systems and other equipment to be used	2	5	-	-
PC4. provide inputs for design of conveyor movement incorporating horizontal and vertical movement, merging of conveyors, and sorting systems	2	5	-	-
PC5. suggest routes for movement of AGV and other Material Handling Equipment (MHE)	2	5	-	-
PC6. ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth and collision free movement	2	5	-	-
PC7. assist in design and selection of storage racks and pallets to ensure easy access by automated equipment	2	5	-	-
PC8. support in designing the grid of Radio frequency identification (RFIDs), and bar codes to map the entire warehouse	2	5	-	-
Manage automated equipment operations	14	28	-	-
PC9. ensure correct usage of automated and computerised systems as per Standard Operating Procedure (SOP)	2	5	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. conduct regular inspection to ensure that all equipment is functional	2	5	-	-
PC11. supervise the maintenance of automated warehouse equipment	2	5	-	-
PC12. ensure maximum utilisation of warehouse assets	2	5	-	-
PC13. provide inputs for re-design of automated warehouse equipment in case of change in process/product	3	4	-	-
PC14. conduct regular review regarding challenges being faced, accidents, system failures, etc.	3	4	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0112
NOS Name	Automated warehouse operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	01/03/2019
Next Review Date	01/03/2022
NSQC Clearance Date	22/08/2019









LSC/N0113: Cold chain operations

Description

This unit is about managing cold chain warehouse operations

Scope

This unit/task covers the following:

- Support design of cold chain warehouse
- Facilitate and review operationsRange: computers, Enterprise resource planning (ERP), Material Handling Equipment (MHEs), inventory models, stationery, Personal protective equipment (PPEs)

Elements and Performance Criteria

Support design of cold chain warehouse

To be competent, the user/individual on the job must be able to:

- **PC1.** understand the types of products being stored, their volume, turn-around time and other business requirements of the cold chain warehouse
- **PC2.** coordinate with designers to design the entire overall layout and provide inputs for storage space allocation based on type of goods and temperature requirements and material handling requirements
- **PC3.** ensure safe storage of refrigerant and gasses (ethylene etc.) are stored in a safe manner and adequate evacuation routes are provided for movement of perishable goods
- **PC4.** support in designing of storage racks, pallets and pathway within warehouse
- **PC5.** support selection of appropriate equipment/ machines to be deployed in the warehouse

Facilitate and review operations

To be competent, the user/individual on the job must be able to:

- **PC6.** ensure ambient temperature and handling precautions are adhered to as per Standard operating procedure (SOP) for various perishable products
- **PC7.** adhere to pre-cooling temperature and storage conditions
- **PC8.** ensure compliance to safe handling, loading/unloading of goods
- **PC9.** verify goods documentation for correctness, accuracy and take necessary action to rectify any deviations
- **PC10.** ensure compliance to segregation, sorting, grading, packing, temperature maintenance, coordinate with supervisor for any deviation
- **PC11.** conduct regular check up of the ripening chamber/cold storage areas and ensure proper documentation is done at every stage
- **PC12.** ensure compliance to Hazard Analysis and Critical Control Points (HACCP), Hazardous Material (HAZMAT) and other regulatory requirements
- **PC13.** verify operational fitness of cold chain storage at regular interval that could affect product safety and personnel safety or any other emergencies
- PC14. check that contaminated goods are guarantined as per SOP
- PC15. verify implementation of cleaning schedule for all equipment and machines is followed









- **PC16.** coordinate with reefer vehicle operators to ensure maintenance of appropriate temperature in the vehicles
- **PC17.** review employee operational metrics reports
- **PC18.** prepare periodic reports on operations such as work completion status, resource utilized, down time etc.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project activities
- KU3. companys policy and work instructions on quality standards as well as documentation policy
- **KU4.** importance of the individuals role in the workflow
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- **KU8.** occupational health and safety standards, handling of special and dangerous goods, etc.
- **KU9.** procedures for dealing with loss or damage to goods
- **KU10.** value of items handled and implications of damage/loss of the same
- **KU11.** risk and impact of not following defined work, safety and security procedures
- **KU12.** company policy defined Turnaround Time (TATs) and output metrics for daily operations
- **KU13.** coding system followed to label items
- **KU14.** the Information Technology (IT) system and ERP system of the organization
- **KU15.** process flow of service operation and the entire value chain
- **KU16.** state/country taxes and routing and regarding local and global geographies
- **KU17.** just in time (JIT) mode of inventory management
- **KU18.** use of ERP software including Warehouse management system (WMS), Material Management System (MMS) and Transportation Management System (TMS)
- **KU19.** use of tools for documentation: MS excel and MS Word, etc.
- **KU20.** basics understanding of statistical and quantitative analysis tools
- **KU21.** use of spreadsheets to tabulate and analyze the data
- **KU22.** structure and implications of fees and charges involved in transportation, warehousing, etc.
- KU23. supply chain management
- **KU24.** transit rules and regulations
- **KU25.** different types of warehouse layouts and rackings
- **KU26.** capacity and usage of different MHEs
- **KU27.** usage of different information processing devices like barcode scanners, Radio frequency identification (RFID) scanners, etc.
- **KU28.** types of workplace hazards that one can encounter on the job and safe operating practices
- **KU29.** all activities being done in a warehouse
- **KU30.** shop floor operations and material planning









- **KU31.** cold chain and its operations
- KU32. different inventory management systems as well as counting methods
- **KU33.** technical specifications of goods in the warehouse
- KU34. possible difficulties in each warehousing activity

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** work instructions, customer requirement and quality policy
- **GS2.** legal policies and regulations
- **GS3.** internal communications memorandums
- **GS4.** legal documentation part of the shipment/ goods
- **GS5.** checklists and daily reports
- **GS6.** forms pertaining to inventory received or dispatched
- **GS7.** notes about accidents, damage to components received
- **GS8.** instructions for supervisors and staff
- **GS9.** daily reports regarding updates and reviews
- GS10. communicate clearly with management
- **GS11.** provide advice and guidance to peers & juniors
- **GS12.** communicate with workers for delays and updates in schedules
- **GS13.** decide on the quality of goods reciept in terms of remaining shelf live, contamination, etc.
- **GS14.** decide on appropriate area for storage of a certain product considering the ambient environment and temperature requirement
- **GS15.** decide on the warehouse design based on product category and technical limitations
- **GS16.** liaison with customers, government officials, vendors and staff
- **GS17.** plan and organise review meetings with vendors, contractors
- **GS18.** organise projects/ training plans for performance improvement
- **GS19.** take prompt action on queries raised by the customer
- **GS20.** schedule activities in accordance to customer requirements
- **GS21.** resolve system and operational issues either interally or by escalating to relevant authority
- **GS22.** address the gueries raised by vendors, contractors and other external stakeholders
- **GS23.** analyze the resource requirement in terms of manpower, delivery vehicles, software, system, etc. while designing layouts and shift reviews
- **GS24.** provide suggestions and methodologies and implement them for operational activities
- **GS25.** analyse reports and take necessary action
- **GS26.** assess delays or non-performance in daily reporting or closures
- **GS27.** identify key areas that are crucial for performance improvement
- **GS28.** think tactically, with attention to details
- **GS29.** design and plan warehouse layout and operations with a futuristic approach
- **GS30.** improve work processes by adopting global best practices









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Support design of cold chain warehouse	10	25	-	-
PC1. understand the types of products being stored, their volume, turn-around time and other business requirements of the cold chain warehouse	2	5	-	-
PC2. coordinate with designers to design the entire overall layout and provide inputs for storage space allocation based on type of goods and temperature requirements and material handling requirements	2	5	-	-
PC3. ensure safe storage of refrigerant and gasses (ethylene etc.) are stored in a safe manner and adequate evacuation routes are provided for movement of perishable goods	2	5	-	-
PC4. support in designing of storage racks, pallets and pathway within warehouse	2	5	-	-
PC5. support selection of appropriate equipment/ machines to be deployed in the warehouse	2	5	-	-
Facilitate and review operations	20	45	-	-
PC6. ensure ambient temperature and handling precautions are adhered to as per Standard operating procedure (SOP) for various perishable products	2	3	-	-
PC7. adhere to pre-cooling temperature and storage conditions	2	3	-	-
PC8. ensure compliance to safe handling, loading/unloading of goods	2	3	-	-
PC9. verify goods documentation for correctness, accuracy and take necessary action to rectify any deviations	2	3	-	-
PC10. ensure compliance to segregation, sorting, grading, packing, temperature maintenance, coordinate with supervisor for any deviation	2	3	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. conduct regular check up of the ripening chamber/cold storage areas and ensure proper documentation is done at every stage	2	3	-	-
PC12. ensure compliance to Hazard Analysis and Critical Control Points (HACCP), Hazardous Material (HAZMAT) and other regulatory requirements	1	4	-	-
PC13. verify operational fitness of cold chain storage at regular interval that could affect product safety and personnel safety or any other emergencies	1	4	-	-
PC14. check that contaminated goods are quarantined as per SOP	1	4	-	-
PC15. verify implementation of cleaning schedule for all equipment and machines is followed	1	4	-	-
PC16. coordinate with reefer vehicle operators to ensure maintenance of appropriate temperature in the vehicles	1	4	-	-
PC17. review employee operational metrics reports	1	4	-	-
PC18. prepare periodic reports on operations such as work completion status, resource utilized, down time etc.	2	3	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0113
NOS Name	Cold chain operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	01/03/2019
Next Review Date	01/03/2022
NSQC Clearance Date	22/08/2019









LSC/N0114: Dry Bulk warehouse operations

Description

This unit is about managing dry bulk warehousing operations

Scope

This unit/task covers the following:

- Support design of bulk warehouse
- Facilitate and review of dry bulk warehouse operationsRange: Computers, Management information system (MIS), Inventory models, stationery

Elements and Performance Criteria

Support design of dry bulk warehouse

To be competent, the user/individual on the job must be able to:

- **PC1.** understand the types of products/commodity being stored, their volume, turn-around time (TAT) and other business requirements of the warehouse
- **PC2.** select the right kind of storage method as per the product/commodity type to maintenance of temperature, humidity and other storage conditions
- PC3. ensure fitness of site for dry bulk warehouse operations in terms of: a. ground condition and suitability b. cargo size, weight, height and size of stows/heaps c. electrical installations d. stack integrity and product flow dynamics e. arrangements for both operational and emergency situations, traffic, requirements for permanent or movable bulk walls and maintenance cleaning requirements f. likely vehicle fumes in bulk storage areas g. other operational units in the vicinity h. type of equipment going to be deployed
- **PC4.** coordinate with designers to design the entire overall layout of the warehouse
- **PC5.** provide inputs for layout and usage of Material Handling Equipments (MHEs) and other equipment to be used
- **PC6.** ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth and collision free movement
- **PC7.** support development of systems to monitor the storage of cargo and tracking of capacity utilisation
- **PC8.** ensure compliance of warehouse to dangerous goods handling

Facilitate and review dry bulk warehouse operations

To be competent, the user/individual on the job must be able to:

- **PC9.** check periodically on the safety of the stored products, and take necessary preventive action
- **PC10.** contain product loss to a minimum by ensuring adequate pest/rodent control measure, monitoring spillages/breakages and taking necessary preventive and corrective action
- **PC11.** continuously monitor weight and volume metrics to ensure adequate storage in different locations
- **PC12.** conduct regular inspection to ensure that all equipment are functional
- **PC13.** conduct regular review regarding challenges being faced, accidents, system failures, etc









- **PC14.** review daily operation reports w.r.t storage space utilization
- **PC15.** supervise maintenance activities of warehouse systems and equipment
- **PC16.** prepare periodic reports for top management on warehouse performance

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project acivities
- KU3. companys policy and work instructions on quality standards as well as documentation policy
- **KU4.** importance of the individuals role in the workflow
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- KU8. occupational health and safety standards, handling of special and dangerous goods, etc
- **KU9.** procedures for dealing with loss or damage to goods
- **KU10.** value of items handled and implications of damage/loss of the same
- KU11. risk and impact of not following defined work, safety and security procedures
- **KU12.** company policy defined TATs and output metrics for daily operations
- **KU13.** coding system followed to label items
- **KU14.** the Information Technology (IT) system and ERP system of the organization
- **KU15.** process flow of service operation and the entire value chain
- **KU16.** state/country taxes and routing and regarding local and global geographies
- **KU17.** use of ERP software including Warehouse management system (WMS), Material Management System (MMS) and Transportation Management System (TMS)
- **KU18.** just in time (JIT) mode of inventory management
- **KU19.** use of tools for documentation: MS excel and MS Word, etc.
- **KU20.** basics of statistical and quantitative analysis tools
- **KU21.** use of spreadsheets to tabulate and analyze the data
- **KU22.** structure and implications of fees and charges involved in transportation, warehousing, etc.
- KU23. supply chain management
- **KU24.** transit rules and regulations
- **KU25.** differet types of warehouse layouts and rackings
- **KU26.** the capacity and usage of different MHEs
- **KU27.** the usage of different information processing devices like barcode scanners, Radio frequency identification (RFID) scanners, etc.
- **KU28.** types of workplace hazards that one can encounter on the job and safe operating practices
- KU29. activities being done in a warehouse
- KU30. shop floor operations and material planning









- KU31. bulk warehouse and its operations like use of conveyor systems, equipment and tanks specific to bulk storage, etc.
- KU32. different inventory management systems as well as counting methods
- KU33. technical specifications of goods in the warehouse
- **KU34.** possible difficulties in each warehousing activity
- **KU35.** products to be stored under bulk warehousing

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** work instructions, customer requirement and quality policy
- **GS2.** legal policies and regulations
- **GS3.** internal communications memorandums
- **GS4.** legal documentation part of the shipment/goods
- **GS5.** checklists and daily reports
- **GS6.** forms pertaining to inventory received or dispatched
- **GS7.** notes about accidents, damage to components received
- **GS8.** instructions for supervisors and staff
- **GS9.** daily reports regarding updates and reviews
- **GS10.** communicate clearly with management
- **GS11.** provide advice and guidance to peers & juniors
- GS12. communicate with workers for delays and updates in schedules
- GS13. judge the quality of goods reciept
- **GS14.** decide on storage requirement or different types of products
- **GS15.** decide on warehouse design based on product category and technical limitations
- **GS16.** liaison with customers, government officials, vendors and staff
- **GS17.** plan and organise review meetings with vendors, contractors
- GS18. organise projects/ training plans for performance improvement
- **GS19.** take prompt action on queries raised by the customer
- **GS20.** design the layout in accordance to customer requirements
- **GS21.** resolve system and operational issues either interally or by escalating to relevant authority
- **GS22.** address the gueries raised by vendors, contractors and other external stakeholders
- **GS23.** analyze the resource requirement in terms of manpower, delivery vehicles, software, system, etc. while designing layouts and shift reviews
- **GS24.** provide suggestions and methodologies and implement them for operational activities
- **GS25.** analyse reports and take necessary action
- **GS26.** assess delays or non-performance in daily reporting or closures
- GS27. identify key areas that are crucial for performance improvement
- **GS28.** think tactically, with attention to details
- **GS29.** design and plan warehouse layout and operations with a futuristic approach









GS30. improve work processes by adopting global best practices









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Support design of dry bulk warehouse	14	38	-	-
PC1. understand the types of products/commodity being stored, their volume, turn-around time (TAT) and other business requirements of the warehouse	2	6	-	-
PC2. select the right kind of storage method as per the product/commodity type to maintenance of temperature, humidity and other storage conditions	2	6	-	-
PC3. ensure fitness of site for dry bulk warehouse operations in terms of: a. ground condition and suitability b. cargo size, weight, height and size of stows/heaps c. electrical installations d. stack integrity and product flow dynamics e. arrangements for both operational and emergency situations, traffic, requirements for permanent or movable bulk walls and maintenance cleaning requirements f. likely vehicle fumes in bulk storage areas g. other operational units in the vicinity h. type of equipment going to be deployed	1	5	-	-
PC4. coordinate with designers to design the entire overall layout of the warehouse	1	5	-	-
PC5. provide inputs for layout and usage of Material Handling Equipments (MHEs) and other equipment to be used	2	4	-	-
PC6. ensure designed routes have adequate spacing between different bar codes and tags to ensure smooth and collision free movement	2	4	-	-
PC7. support development of systems to monitor the storage of cargo and tracking of capacity utilisation	2	4	-	-
PC8. ensure compliance of warehouse to dangerous goods handling	2	4	-	-
Facilitate and review dry bulk warehouse operations	16	32	-	-
PC9. check periodically on the safety of the stored products, and take necessary preventive action	2	4	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. contain product loss to a minimum by ensuring adequate pest/rodent control measure, monitoring spillages/breakages and taking necessary preventive and corrective action	2	4	-	-
PC11. continuously monitor weight and volume metrics to ensure adequate storage in different locations	2	4	-	-
PC12. conduct regular inspection to ensure that all equipment are functional	2	4	-	-
PC13. conduct regular review regarding challenges being faced, accidents, system failures, etc	2	4	-	-
PC14. review daily operation reports w.r.t storage space utilization	2	4	-	-
PC15. supervise maintenance activities of warehouse systems and equipment	2	4	-	-
PC16. prepare periodic reports for top management on warehouse performance	2	4	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0114
NOS Name	Dry Bulk warehouse operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	01/03/2019
Next Review Date	01/03/2022
NSQC Clearance Date	22/08/2019









LSC/N0115: Bonded warehouse operations

Description

This unit is about managing Bonded warehouse operations

Scope

This unit/task covers the following:

- Support design of bonded warehouse
- Facilitate and review operationsRange: computers, Enterprise resource planning (ERP), inventory models, stationery

Elements and Performance Criteria

Support design of bonded warehouse

To be competent, the user/individual on the job must be able to:

- **PC1.** evaluate site fitness for bonded warehouse in terms of:a. industrial development of the proposed area for availability of importers and exportersb. warehouses are to be appointed/licensed at designate places as per govt requirementsc. understand the types of products being stored, their volume, turnaround time and other business requirements of the warehouse
- **PC2.** coordinate with designers to design the entire overall layout of the warehouse in accordance with bonded warehouse regulations
- **PC3.** provide inputs for layout and usage of Material Handling Equipment (MHEs) and other equipment to be used
- **PC4.** support development of systems to monitor the storage of cargo and tracking of capacity utilisation
- **PC5.** design location of storage racks and pallets for ease of movement and operation

Facilitate and review operations

To be competent, the user/individual on the job must be able to:

- **PC6.** maintain a documented record of all movements (merchandise received and shipped) made in the warehouse
- **PC7.** issue bond to the customer for the placement of goods in the warehouse
- **PC8.** draft and present regular reports of goods movements in the bonded warehouse to the Customs Authorities
- **PC9.** coordinate with with custom officials, custom brokers, transport brokers, International Air Transport Association (IATA) agents, etc., to assist in custom clearance
- **PC10.** interact with customs and take necessary action to release goods seized by customs by providing the required documentation and other inputs
- **PC11.** address client queries and grievances immediately and take necessary corrective and preventive action
- **PC12.** apply opportune changes or updates in accordance to the legal regulations governing bonded warehouse









- **PC13.** conduct regular review regarding challenges being faced, accidents, system failures, etc.
- **PC14.** review daily operation reports w.r.t storage space utilization
- PC15. supervise maintenance activities of warehouse systems and equipment

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project acivities
- KU3. companys policy and work instructions on quality standards as well as documentation policy
- **KU4.** importance of the individuals role in the workflow
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- **KU8.** occupational health and safety standards, handling of special and dangerous goods, etc.
- **KU9.** procedures for dealing with loss or damage to goods
- **KU10.** value of items handled and implications of damage/loss of the same
- KU11. risk and impact of not following defined work, safety and security procedures
- **KU12.** company policy defined Turnaround time (TATs) and output metrics for daily operations
- **KU13.** coding system followed to label items
- **KU14.** the Information Technology (IT) system and ERP system of the organization
- **KU15.** process flow of service operation and the entire value chain
- **KU16.** state/country taxes and routing and regarding local and global geographies
- **KU17.** use of ERP software including Warehouse management system (WMS), Material Management System (MMS) and Transportation Management System (TMS)
- **KU18.** just in time (JIT) mode of inventory management
- **KU19.** use tools for documentation: MS excel and MS Word, etc.
- **KU20.** basics of statistical and quantitative analysis tools
- **KU21.** use of spreadsheets to tabulate and analyze the data
- **KU22.** structure and implications of fees and charges involved in transportation, warehousing, etc.
- **KU23.** supply chain management
- **KU24.** transit rules and regulations
- **KU25.** differet types of warehouse layouts and rackings
- **KU26.** capacity and usage of different MHEs
- **KU27.** usage of different information processing devices like barcode scanners, Radio frequency identification (RFID) scanners, etc.
- **KU28.** types of workplace hazards that one can encounter on the job and safe operating practices
- KU29. activities being done in a warehouse
- **KU30.** shop floor operations and material planning









- **KU31.** bulk warehouse and its operations like use of conveyor systems, equipment and tanks specific to bulk storage, etc.
- KU32. different inventory management systems as well as counting methods
- **KU33.** technical specifications of goods in the warehouse
- **KU34.** possible difficulties in each warehousing activity

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** work instructions, customer requirement and quality policy
- **GS2.** legal policies and regulations
- **GS3.** internal communications memorandums
- **GS4.** legal documentation part of the shipment/ goods
- **GS5.** checklists and daily reports
- **GS6.** forms pertaining to inventory received or dispatched
- **GS7.** notes about accidents, damage to components received
- GS8. instructions for supervisors and staff
- **GS9.** daily reports regarding updates and reviews
- **GS10.** communicate clearly with management
- **GS11.** provide advice and guidance to peers & juniors
- **GS12.** communicate with workers for delays and updates in schedules
- GS13. judge the quality of goods reciept
- **GS14.** identify components required to make a product based on requests
- **GS15.** design the warehouse based on product category and technical limitations
- **GS16.** liaison with customers, government officials, vendors and staff
- **GS17.** plan and organise review meetings with vendors, contractors
- **GS18.** organise projects/ training plans for performance improvement
- **GS19.** take prompt action on queries raised by the customer
- **GS20.** schedule activities in accordance to customer requirements
- **GS21.** resolve system and operational issues either internally or by escalating to relevant stakeholders
- **GS22.** address the queries raised by vendors, contractors and other external stakeholders that are not resolved by supervisor and executives
- **GS23.** analyze the resource requirement in terms of manpower, delivery vehicles, software, system, etc. while designing layouts and shift reviews
- **GS24.** provide suggestions and methodologies and implement them for operational activities
- GS25. analyse reports and take necessary action
- **GS26.** assess delays or non-performance in daily reporting or closures
- GS27. identify key areas that are crucial for performance improvement
- **GS28.** think tactically, with attention to details
- **GS29.** design and plan warehouse layout and operations with a futuristic approach









GS30. improve work processes by adopting global best practices









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Support design of bonded warehouse	10	30	-	-
PC1. evaluate site fitness for bonded warehouse in terms of:a. industrial development of the proposed area for availability of importers and exportersb. warehouses are to be appointed/licensed at designate places as per govt requirementsc. understand the types of products being stored, their volume, turnaround time and other business requirements of the warehouse	2	6	-	-
PC2. coordinate with designers to design the entire overall layout of the warehouse in accordance with bonded warehouse regulations	2	6	-	-
PC3. provide inputs for layout and usage of Material Handling Equipment (MHEs) and other equipment to be used	2	6	-	-
PC4. support development of systems to monitor the storage of cargo and tracking of capacity utilisation	2	6	-	-
PC5. design location of storage racks and pallets for ease of movement and operation	2	6	-	-
Facilitate and review operations	20	40	-	-
PC6. maintain a documented record of all movements (merchandise received and shipped) made in the warehouse	2	4	-	-
PC7. issue bond to the customer for the placement of goods in the warehouse	2	4	-	-
PC8. draft and present regular reports of goods movements in the bonded warehouse to the Customs Authorities	2	4	-	-
PC9. coordinate with with custom officials, custom brokers, transport brokers, International Air Transport Association (IATA) agents, etc., to assist in custom clearance	2	4	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. interact with customs and take necessary action to release goods seized by customs by providing the required documentation and other inputs	2	4	-	-
PC11. address client queries and grievances immediately and take necessary corrective and preventive action	2	4	-	-
PC12. apply opportune changes or updates in accordance to the legal regulations governing bonded warehouse	2	4	-	-
PC13. conduct regular review regarding challenges being faced, accidents, system failures, etc	2	4	-	-
PC14. review daily operation reports w.r.t storage space utilization	2	4	-	-
PC15. supervise maintenance activities of warehouse systems and equipment	2	4	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N0115
NOS Name	Bonded warehouse operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	01/03/2019
Next Review Date	01/03/2022
NSQC Clearance Date	22/08/2019









LSC/N1007: Manage multimodal operations

Description

This unit is about managing operations at a multi modal transport hub

Scope

This unit/task covers the following:

- Plan for multimodal operations
- Manage various stakeholders in multimodal transportation operationsRange: Computers, Enterprise
 resource planning (ERP), Material Handling Equipment (MHEs), inventory models, stationery,
 Personal Protective Equipment (PPEs)

Elements and Performance Criteria

Plan for multimodal operations

To be competent, the user/individual on the job must be able to:

- **PC1.** understand the feasibility for multimodal transportation based on clients requirement
- **PC2.** check for availability of multimode transportation (air, ocean, inland waterway, rail, and road) with service providers, based on product nature
- **PC3.** plan the sequential movement of goods through various modes of transportation based on timeline and priority requirements
- **PC4.** detail the plan to supervisors for execution and clarify doubts if any

Manage various stakeholders in multimodal transportation operations

To be competent, the user/individual on the job must be able to:

- **PC5.** connect with various mode of transporters to understand their capcacity and availability for trans-shipment needs
- **PC6.** Pcoordinate with other stakeholders like port authorities, railways, Inland Container Depot (ICDs), custom officials, airport authority for required clearances, documents and aligning timeliness for trans-shipment
- **PC7.** allocate work to supervisors based on priority and review daily operations through ERP and site inspections
- **PC8.** review and approve cross docking requests
- **PC9.** inspect transport centre including interchange zones/facilities for cleanliness and also check for inventory handling, availability of resources, maintenance of different MHEs etc
- **PC10.** approve request for additional or alternate resources to ensure timeliness
- **PC11.** resolve queries of supervisors and handle escalations related to inventory damage, claims management, MHE repairs, accidents etc.
- **PC12.** analyse daily reports to check operational performance in terms of efficiency, utilisation, errors, damages, etc.
- **PC13.** extract information on business performance invovling P&L analysis, turnover performance, etc.









Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** process flow of service operation and the entire value chain
- **KU2.** state/country taxes and routing and regarding local and global geographies
- **KU3.** Kuse of ERP software including Warehouse management system (WMS), Material Management System (MMS) and Transportation Management System (TMS)
- **KU4.** use of tools for documentation: MS excel and MS Word, etc.
- KU5. basics of statistical and quantitative analysis tools
- **KU6.** use of spreadsheets to tabulate and analyze the data
- **KU7.** structure and implications of fees and charges involved in transportation, warehousing, etc
- **KU8.** supply chain management
- **KU9.** transit rules and regulations
- **KU10.** differet types of warehouse layouts and rackings
- **KU11.** the capacity and usage of different MHEs
- **KU12.** the usage of different information processing devices like barcode scanners, Radio frequency identification (RFID) scanners, etc.
- KU13. types of workplace hazards that one can encounter on the job and safe operating practices
- **KU14.** the use of technology and IT systems in arranging and organising shipment movements
- **KU15.** multi modal hub is and its operations
- **KU16.** the roles of ICDS, customs, brokers, frieght, port authority, etc
- **KU17.** different inventory management systems as well as counting methods
- **KU18.** various econometric and statistical models and analysis
- **KU19.** different inventory management systems as well as counting methods
- **KU20.** technical specifications of goods in the warehouse
- **KU21.** possible difficulties in each warehousing activity

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** work instructions, customer requirement and quality policy
- **GS2.** legal policies and regulations
- **GS3.** internal communications memorandums
- **GS4.** legal documentation part of the shipment/ goods
- **GS5.** checklists and daily reports
- **GS6.** letters, emails and communication notices
- GS7. notes about accidents, damage to components received
- **GS8.** instructions for supervisors and staff
- **GS9.** daily reports regarding updates and reviews
- **GS10.** communicate clearly with management









- **GS11.** communicate with client and external stakeholders
- **GS12.** provide advice and guidance to peers & juniors
- **GS13.** communicate with supervisors
- **GS14.** decide on bay allocation to different shippers
- **GS15.** decide on the training and technological upgradation needs
- GS16. decide on which activity to be prioritized based on clients inputs
- GS17. liaison with customers, government officials, vendors and staff
- **GS18.** plan and organise review meetings with vendors, contractors
- **GS19.** organise projects/ training plans for performance improvement
- **GS20.** take prompt action on queries raised by the customer
- **GS21.** schedule activities in accordance to customer requirements
- **GS22.** resolve operational issues related to transport planning, mechanical failures, etc. either interally or by escalating to relevant authority
- **GS23.** address the queries raised by vendors, contractors and other external stakeholders
- **GS24.** analyze the resource requirement in terms of manpower, delivery vehicles, software, system, etc. while making forecasts and plans
- GS25. provide suggestions and methodologies and implement them for operational activities
- GS26. analyse reports and take necessary action
- **GS27.** assess delays or non-performance in daily reporting or closures
- **GS28.** identify key areas that are crucial for performance improvement
- **GS29.** think tactically, with attention to details
- **GS30.** design and plan layout and operations with a futuristic approach
- **GS31.** keep a backup solution in case required
- **GS32.** improve work processes by adopting global best practices









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Plan for multimodal operations	12	28	-	-
PC1. understand the feasibility for multimodal transportation based on clients requirement	3	7	-	-
PC2. check for availability of multimode transportation (air, ocean, inland waterway, rail, and road) with service providers, based on product nature	3	7	-	-
PC3. plan the sequential movement of goods through various modes of transportation based on timeline and priority requirements	3	7	-	-
PC4. detail the plan to supervisors for execution and clarify doubts if any	3	7	-	-
Manage various stakeholders in multimodal transportation operations	18	42	-	-
PC5. connect with various mode of transporters to understand their capcacity and availability for trans-shipment needs	2	6	-	-
PC6. Pcoordinate with other stakeholders like port authorities, railways, Inland Container Depot (ICDs), custom officials, airport authority for required clearances, documents and aligning timeliness for trans-shipment	2	6	-	-
PC7. allocate work to supervisors based on prioirty and review daily operations through ERP and site inspections	2	6	-	-
PC8. review and approve cross docking requests	2	4	-	-
PC9. inspect transport centre including interchange zones/facilities for cleanliness and also check for inventory handling, availability of resources, maintenance of different MHEs etc	2	4	-	-
PC10. approve request for additional or alternate resources to ensure timeliness	2	4	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. resolve queries of supervisors and handle escalations related to inventory damage, claims management, MHE repairs, accidents etc.	2	4	-	-
PC12. analyse daily reports to check operational performance in terms of efficiency, utilisation, errors, damages, etc.	2	4	-	-
PC13. extract information on business performance invovling P&L analysis, turnover performance, etc.	2	4	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N1007
NOS Name	Manage multimodal operations
Sector	Logistics
Sub-Sector	Land Transportation
Occupation	Transport Operations, Vehicle Operations, Customer Support/Relations, Documentation and Reporting
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	22/08/2019









LSC/N1008: Manage hub and spoke operations

Description

This unit is about managing operations at a hub and spoke model transport hub

Scope

This unit/task covers the following:

• Manage hub and spoke operationsRange: computers, Enterprise resource planning (ERP), Material Handling Equipment (MHEs), inventory models, stationery, Personal Protective Equipment (PPEs)

Elements and Performance Criteria

Manage hub and spoke operations

To be competent, the user/individual on the job must be able to:

- **PC1.** plan various activities to be executed at the hub and its associated warehouses
- **PC2.** discuss and approve daily workplan prepared by supervisors for execution of hub activities {sorting/ packing/ labelling/ aggregating/ break-bulk/ container loading Less than Container Load (LCL)/ Full Container Load (FCL) / forwarding}
- **PC3.** coordinate with vendors, shippers and other stakeholders for timely action and resolution of disputes
- PC4. review and approve documentation for claims against damaged goods
- **PC5.** coordinate with clients in cases of delays
- **PC6.** approve request for additional or alternate resources based on the need
- **PC7.** analyse daily reports on various hub activities and undertake preventive and corrective action

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project acivities
- **KU3.** companys policy and work instructions on quality standards
- **KU4.** companys documentation policy
- **KU5.** organisation structure of the company to have better understanding of various departments and skills set present in the company
- **KU6.** importance of the individuals role in the workflow
- **KU7.** occupational health and safety standards
- **KU8.** risk and impact of not following defined work, safety and security procedures
- **KU9.** procedures for dealing with loss or damage to goods
- **KU10.** value of items handled and implications of damage/loss of the same
- **KU11.** company policy defined Turnaround Time (TATs) and output metrics for daily operations









- KU12. Standard Operating Procedures (SOPs) and how to react in emergencies
- **KU13.** nature and characteristics of components in the warehouse
- **KU14.** entire shop floor activities and persons in charge of each function
- **KU15.** coding system being used by the organization for labelling
- **KU16.** process flow of service operation and the entire value chain
- KU17. state/country taxes and routing and regarding local and global geographies
- **KU18.** use of ERP software including Warehouse management system (WMS), Material Management System (MMS) and Transportation Management System (TMS)
- **KU19.** use of tools for documentation: MS excel and MS Word, etc.
- KU20. basics of statistical and quantitative analysis tools
- **KU21.** use of spreadsheets to tabulate and analyze the data
- **KU22.** structure and implications of fees and charges involved in transportation, warehousing, etc.
- KU23. supply chain management
- **KU24.** transit rules and regulations
- **KU25.** differet types of warehouse layouts and rackings
- KU26. the capacity and usage of different MHEs
- **KU27.** the usage of different information processing devices like barcode scanners, Radio frequency identification (RFID) scanners, etc.
- KU28. types of workplace hazards that one can encounter on the job and safe operating practices
- **KU29.** the use of technology and Information Technology (IT) systems in arranging and organising shipment movements
- KU30. the roles of Inland Container Depot (ICDS), customs, brokers, frieght, port authority, etc
- **KU31.** different inventory management systems as well as counting methods
- **KU32.** various econometric and statistical models and analysis
- **KU33.** different inventory management systems as well as counting methods
- KU34. technical specifications of goods in the warehouse and while transport

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** work instructions, customer requirement and quality policy
- GS2. legal policies and regulations
- GS3. internal communications memorandums
- **GS4.** legal documentation part of the shipment/ goods
- **GS5.** checklists and daily reports
- **GS6.** letters, emails and communication notices
- **GS7.** notes about accidents, damage to components received
- **GS8.** instructions for supervisors and staff
- **GS9.** daily reports regarding updates and reviews
- **GS10.** communicate clearly with management









- **GS11.** communicate with client and external stakeholders
- **GS12.** provide advice and guidance to peers & juniors
- **GS13.** communicate with supervisors
- **GS14.** decide on bay allocation to different shippers
- **GS15.** decide on the training and technological upgradation needs
- **GS16.** decide on which activity to be prioritized based on clients inputs
- GS17. liaison with customers, government officials, vendors and staff
- **GS18.** plan and organise review meetings with vendors, contractors
- **GS19.** organise projects/ training plans for performance improvement
- **GS20.** take prompt action on queries raised by the customer
- **GS21.** schedule activities in accordance to customer requirements
- **GS22.** resolve operational issues related to transport planning, mechanical failures, etc. either interally or by escalating to relevant authority
- **GS23.** address the queries raised by vendors, contractors and other external stakeholders
- **GS24.** analyze the resource requirement in terms of manpower, delivery vehicles, software, system, etc. while making forecasts and plans
- **GS25.** provide suggestions and methodologies and implement them for operational activities
- GS26. analyse reports and take necessary action
- **GS27.** assess delays or non-performance in daily reporting or closures
- **GS28.** identify key areas that are crucial for performance improvement
- **GS29.** think tactically, with attention to details
- **GS30.** design and plan layout and operations with a futuristic approach
- **GS31.** think ad keep a backup solution in case required
- **GS32.** improve work processes by adopting global best practices









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Manage hub and spoke operations	30	70	-	-
PC1. plan various activities to be executed at the hub and its associated warehouses	5	10	-	-
PC2. discuss and approve daily workplan prepared by supervisors for execution of hub activities {sorting/ packing/ labelling/ aggregating/ break-bulk/ container loading - Less than Container Load (LCL)/ Full Container Load (FCL) / forwarding}	5	10	-	-
PC3. coordinate with vendors, shippers and other stakeholders for timely action and resolution of disputes	4	10	-	-
PC4. review and approve documentation for claims against damaged goods	4	10	-	-
PC5. coordinate with clients in cases of delays	4	10	-	-
PC6. approve request for additional or alternate resources based on the need	4	10	-	-
PC7. analyse daily reports on various hub activities and undertake preventive and corrective action	4	10	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N1008
NOS Name	Manage hub and spoke operations
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	04/05/2019
Next Review Date	04/05/2022
NSQC Clearance Date	03/08/2018









LSC/N9702: Bid process management

Description

This unit is about managing bid process

Scope

This unit/task covers the following:

- Analyse the tender requirements to decide on bidding
- Prepare the bid and documents and follow on biddingRange: computers, Enterprise resource planning (ERP), MS office

Elements and Performance Criteria

Analyse tender requirements to decide on bidding

To be competent, the user/individual on the job must be able to:

- **PC1.** search and identify new opportunities for business development
- **PC2.** analyse the technical requirement of the tender specifications mentioned in the Request for Proposal (RFP) with respect to organisational capacity and credentials
- **PC3.** conduct preliminary feasibility study and cost analysis of the tender, factoring in various heads of Capital expenditure (CAPEX), Operating expense (OPEX) and the timelines for the project
- **PC4.** clarify any doubts in the bidding processes or scope with the client
- **PC5.** based on initial evaluation obtain confirmation from management for participation in tendering process

Prepare the bid documents and follow on bidding

To be competent, the user/individual on the job must be able to:

- **PC6.** generate proposal responsibility by allocating work and gaining commitment from individuals responsible for specific sections/questions
- **PC7.** coordinate with internal departments viz., engineering, procurement, implementation, operations, Human Resources (HR), finance and legal team for proposal preparation
- **PC8.** coordinate with engineering, procurement, implementation, operations, HR and finance team to arrive at the quote
- **PC9.** prepare the CAPEX and OPEX budget for the tender and get an approval from the management
- **PC10.** ensure all services are included in the final price to the customer
- **PC11.** complete the bid document in a timely manner, cross verify with bid checklist and submit the bid on time
- PC12. follow up with client for any additional information or support requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:









- **KU1.** vision, mission and values of the company
- **KU2.** companys reporting structure to support and expedite project acivities
- **KU3.** companys policy and work instructions on quality standards
- **KU4.** companys documentation policy
- **KU5.** companys policy on business ethics and code of conduct
- **KU6.** business and performance of the company
- **KU7.** knowledge repository and various projects done by the company
- **KU8.** procedures for dealing with loss or damage to goods
- **KU9.** value of items handled and implications of damage/loss of the same
- KU10. risk and impact of not following defined work, safety and security procedures
- **KU11.** company policy defined Turnaround time (TATs) and output metrics for daily operation
- **KU12.** just in time (JIT) mode of inventory management
- **KU13.** process flow of service operation, value chain and basic supply chain map within the sub sector
- **KU14.** state/country taxes and routing
- **KU15.** local and global geographies
- **KU16.** use of ERP software including Warehouse management system (WMS), Material Management System (MMS) and Transportation Management System (TMS)
- **KU17.** use of various tools for documentation: MS excel and MS Word, etc.
- KU18. basics of statistical and quantitative analysis tools
- **KU19.** use of spreadsheets to tabulate and analyze the data
- **KU20.** structure and implications of fees and charges involved in transportation, warehousing, etc.
- **KU21.** transit rules and regulations
- KU22. use of different tools and vehicles used for handling the shipment
- **KU23.** procurement related terminologies: Purchase order (PO), Invoice etc.
- **KU24.** forecasting, planning and developing detailed budgets
- **KU25.** the procurement and bid process
- **KU26.** the capacity of various resources so as to make resource plans
- KU27. all activities being done in the unit
- KU28. possible difficulties and challenges with respect to each activity being carried out in the unit

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** work instructions, customer requirement and quality policy
- **GS2.** legal policies and regulations
- **GS3.** internal communications memorandums
- **GS4.** legal documentation part of the shipment/ goods
- **GS5.** checklists and daily reports
- **GS6.** fill in appropriate details regarding forms, bid documents, etc.









- **GS7.** write emails, communications, letters for information
- GS8. write daily reports regarding updates and reviews
- **GS9.** communicate clearly in local language or english with management
- GS10. provide advice and guidance to peers & juniors
- **GS11.** communicate on work requirement clearly to all the employees
- **GS12.** listen to queries patiently and answer them aptly
- GS13. decide wether to bid for a certain proposal or not
- **GS14.** decide the resource requirement while making proposal budgets
- **GS15.** liaison with bidding and tender companies, platforms, internal departments to get adequate information
- **GS16.** plan and organise review meetings
- **GS17.** organise plan and schedule for task completion and bid submission
- **GS18.** take special note of requirement of customer while planning the bid and budget
- **GS19.** resolve queries with repect to bid by escalating and coordinating with relevant external stakeholders
- GS20. address the queries raised by internal management during bid review meetings
- **GS21.** analyze the resource requirement in terms of manpower, equipment, delivery vehicles, software, system, etc. while preparing budgets
- **GS22.** analyse by reviewing the requirement with organisations credentials and capacity if it is a good fit to bid for
- **GS23.** think tactically, with attention to details
- **GS24.** prepare bids with sufficient scope for contingencies









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Analyse tender requirements to decide on bidding	12	32	-	-
PC1. search and identify new opportunities for business development	3	7	-	-
PC2. analyse the technical requirement of the tender specifications mentioned in the Request for Proposal (RFP) with respect to organisational capacity and credentials	3	7	-	-
PC3. conduct preliminary feasibility study and cost analysis of the tender, factoring in various heads of Capital expenditure (CAPEX), Operating expense (OPEX) and the timelines for the project	2	6	-	-
PC4. clarify any doubts in the bidding procesess or scope with the client	2	6	-	-
PC5. based on initial evaluation obtain confirmation from management for participation in tendering process	2	6	-	-
Prepare the bid documents and follow on bidding	18	38	-	-
PC6. generate proposal responsibility by allocating work and gaining commitment from individuals responsible for specific sections/questions	2	6	-	-
PC7. coordinate with internal departments viz., engineering, procurement, implementation, operations, Human Resources (HR), finance and legal team for proposal preparation	2	6	-	-
PC8. coordinate with engineering, procurement, implementation, operations, HR and finance team to arrive at the quote	2	6	-	-
PC9. prepare the CAPEX and OPEX budget for the tender and get an approval from the management	3	5	-	-
PC10. ensure all services are included in the final price to the customer	3	5	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. complete the bid document in a timely manner, cross verify with bid checklist and submit the bid on time	3	5	-	-
PC12. follow up with client for any additional information or support requirement	3	5	-	-
NOS Total	30	70	-	-









National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9702
NOS Name	Bid process management
Sector	Logistics
Sub-Sector	Warehousing (Storage & Packaging)
Occupation	Warehousing Operations, Packaging, Documentation and Reporting, Engineering/Maintenance
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	01/03/2019
Next Review Date	01/03/2022
NSQC Clearance Date	22/08/2019

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

- 1.Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
- 2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
- 3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
- 4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
- 5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
- 6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level: 70









(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0111.Support in warehouse layout design and customs clearance	30	70	-	-	100	10
LSC/N0116.Manage in-plant logistics	30	70	-	-	100	10
LSC/N0117.Forecasting, planning and stock keeping	30	70	-	-	100	10
LSC/N9601.Conduct daily review and facilitate operations	30	70	-	-	100	15
LSC/N9602.Review performance and develop performance improvement plan	30	70	-	-	100	10
LSC/N9603.Profit and Loss Account management and cost accounting	30	70	-	-	100	10
LSC/N9701.Business development and stakeholder relations	30	70	-	-	100	10
LSC/N9907.Verify and review GST application	40	60	-	-	100	5
LSC/N9908.Maintain and monitor integrity and ethics in operations	40	60	-	-	100	5
LSC/N9909.Follow and monitor health, safety and security procedures	40	60	-	-	100	5









National Occupations Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
Total	330	670	-	-	1000	90

Elective: 1 Automated Warehouse

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0112.Automated warehouse operations	30	70	-	-	100	10
Total	30	70	-	-	100	10

Elective: 2 Cold Chain Warehouse

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0113.Cold chain operations	30	70	-	-	100	10
Total	30	70	-	-	100	10

Elective: 3 Dry Bulk Warehouse

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0114.Dry Bulk warehouse operations	30	70	-	-	100	10
Total	30	70	-	-	100	10

Elective: 4 Bonded Warehouse









National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N0115.Bonded warehouse operations	30	70	-	-	100	10
Total	30	70	-	-	100	10

Elective: 5 Multimodal operations

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N1007.Manage multimodal operations	30	70	-	-	100	10
Total	30	70	-	-	100	10

Elective: 6 Hub and spoke operations

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N1008.Manage hub and spoke operations	30	70	-	-	100	10
Total	30	70	-	-	100	10

Optional: 1 Bid Process Management

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N9702.Bid process management	30	70	-	-	100	10
Total	30	70	-	-	100	10









Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training









Glossary

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 qualifications 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 impact on quality of performance required.		









Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ 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. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
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.