

Qualification Pack



Green Hydrogen Tube Trailer - Driver

QP Code: LSC/Q3901

Version: 1.0

NSQF Level: 4

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LSC/Q3901: Green Hydrogen Tube Trailer - Driver

Brief Job Description

The Green Hydrogen Tube Trailer Driver will drive specialized tube trailers efficiently on the assigned route and fulfil critical fuelling needs for a sustainable future. The individual will be responsible for safely transporting Green Hydrogen, complying with strict safety regulations and procedures. This role requires the individual to possess relevant technical skills to handle most of the routine breakdowns that could likely be encountered while driving long distances and through various terrains. The individual is also expected to achieve key performance parameters like fuel efficiency, on-time delivery, etc.

Personal Attributes

This job requires the individual to drive for long hours under tiring and demanding physical and traffic conditions. The individual must be dependable and able to take responsibility for the vehicle and hydrogen tubes. The individual should also be able to communicate effectively to deal with various people daily.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [LSC/N3903: Perform pre-operation checks of the tube trailer](#)
2. [LSC/N3904: Coordinate the loading and unloading process](#)
3. [LSC/N3905: Drive the green hydrogen tube trailer safely and efficiently](#)
4. [LSC/N3906: Perform preventive maintenance and upkeep of the tube trailer](#)
5. [LSC/N3907: Adhere to health, safety and emergency protocols while carrying green hydrogen](#)
6. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Logistics
Sub-Sector	Land Transportation, Liquid Logistics
Occupation	Green Hydrogen Operations/ Handling, Transport Operations , Vehicle Operations
Country	India

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NSQF Level	4
Credits	16
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8332
Minimum Educational Qualification & Experience	<p>8th grade pass with 6 Years of experience as HMV driver (Should possess valid HMV License endorsed for handling hazardous goods OR 10th grade pass with 3 Years of experience as HMV driver (Should possess valid HMV License endorsed for handling hazardous goods OR Certificate-NSQF (Commercial Vehicle Driver - Level 3) with 3 Years of experience as HMV driver (Should possess valid HMV License endorsed for handling hazardous goods</p>
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Should possess valid HMV License endorsed for handling hazardous goods
Minimum Job Entry Age	21 Years
Last Reviewed On	NA
Next Review Date	30/04/2027
NSQF Approval Date	30/04/2024
Version	1.0
Reference code on NQR	QG-04-TW-02474-2024-V1-LSC
NQR Version	1.0

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LSC/N3903: Perform pre-operation checks of the tube trailer

Description

This unit encompasses the knowledge and skills needed for individuals responsible for checking and ensuring the safety and compliance of a vehicle designated for transporting green hydrogen tubes.

Scope

The scope covers the following :

- Check the exterior of the tube trailer
- Examine the interior of the trailer
- Check the hydrogen cylinders
- Verify necessary permits and documents

Elements and Performance Criteria

Check the exterior of the tube trailer

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

- PC1.** conduct a thorough walk-around inspection of the trailer to ensure roadworthiness, noting any visible cracks, dents, leaks, loose connections or damage to the trailer body, frame, and welds
- PC2.** visually inspect the valves, connections, and pressure gauges
- PC3.** inspect for proper tire pressure, tread wear, and any cuts, bulges, or foreign objects lodged in the tire tread, loose lug nuts, cracks, or damage to the wheel rims
- PC4.** test the brakes for proper operation and ensure the parking brake is functional
- PC5.** listen for air leaks and ensure brake lights activate when the pedal is pressed
- PC6.** check all headlights, taillights, brake lights, turn signals, hazard lights, and reflectors are clean, functional, and correctly aligned
- PC7.** ensure fire extinguishers are appropriately mounted and charged, reflective triangles and warning signs are readily accessible, and spill containment kit is present and complete
- PC8.** check that the trailer is properly grounded using the dedicated grounding cable and wheel chocks
- PC9.** verify whether all hazardous material signs and labels are clean, undamaged, and clearly visible
- PC10.** ensure that windshield, windows, and mirrors are clean for better visuals
- PC11.** ensure that there are no flammable items, greasy rags or bottled fuel in the vehicle
- PC12.** check trailer security by performing a 'tug test' or chocking wheels and the free play test to check the steering
- PC13.** ensure that proper warning signs are fixed in the trailer according to regulations, e.g., a 'highly inflammable' warning sign in the form of a Tape or Plate having a retro-reflective background

Examine the interior of the trailer

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

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- PC14.** confirm that pressure relief valves are sealed
- PC15.** ensure that all pressure gauges are functioning correctly and displaying accurate readings
- PC16.** visually inspect all valves and connections for leaks, damage, or loose fittings
- PC17.** use appropriate tools to tighten any loose connections
- PC18.** check for wear, cracks, or leaks in all hoses and piping, ensuring proper routing and secure connections
- PC19.** check the fuel gauge for fuel availability
- PC20.** check fire extinguishers, alarms, and emergency shutdown systems regularly

Check the hydrogen cylinders

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

- PC21.** examine each cylinder or tube for signs of damage, corrosion, or any anomalies
- PC22.** verify that cylinders are securely fastened to the trailer and aligned properly
- PC23.** ensure that all seals are intact and adequately seated to prevent gas leaks
- PC24.** verify pressure readings on all gaseous hydrogen tanks are within acceptable range (20- 60 MPa) as per the manufacturer's specifications/ SOP
- PC25.** ensure the tow vehicle is compatible with the weight and specifications of the Green Hydrogen Tube Trailer

Verify necessary permits and documents

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

- PC26.** verify whether all essential permits and licenses for transporting hazardous materials are current and available
- PC27.** ensure that the trailer registration, fitness certification, insurance documents, copy of registration certificate, road tax and trip/cargo-related documents like MSDS, e-way bill, trip sheet, delivery orders, etc., are available
- PC28.** record all pre-operation checks in a designated logbook, noting any discrepancies or concerns
- PC29.** report actual or possible defects to the service/ transportation supervisor in enough detail so they can diagnose the problem

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** CMVR guidelines from the Ministry of Road Transport & Highway and other guidelines issued by Road Transport Authorities like RTOs
- KU2.** physical and chemical properties of hydrogen, including its flammability range, ignition sources, and potential hazards
- KU3.** company's policy on road worthiness criteria, fundamental compliance with technical requirements and standards, safety and dangers
- KU4.** suitable operating conditions or meeting accepted standards for safe driving on the road
- KU5.** different components of a hydrogen tube trailer, including the trailer body, frame, welds, valves, pressure gauges, hoses, and piping
- KU6.** relevant safety regulations, guidelines, and standards governing the transportation of hazardous materials, particularly gaseous hydrogen

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- KU7.** procedures for conducting a thorough exterior and interior inspection of a hydrogen tube trailer
- KU8.** tire and rim maintenance process
- KU9.** braking system, lighting systems and safety systems
- KU10.** working of the exhaust system
- KU11.** local, national, and international regulations governing the transportation of hazardous materials, primarily gaseous hydrogen
- KU12.** manufacturer's specifications and standard operating procedures (SOP) for the specific green hydrogen tube trailer being operated

Generic Skills (GS)

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

- GS1.** read manuals, inspection checklists, delivery notes, health and safety instructions, etc.
- GS2.** communicate with team members, supervisors, and relevant authorities
- GS3.** make informed decisions based on critical analysis of pre-operation check results
- GS4.** efficiently manage time during pre-operation checks
- GS5.** follow supervisor's instructions
- GS6.** organize and analyze information relevant to the work
- GS7.** exercise restraint while voicing disagreement or during conflict circumstances
- GS8.** seek assistance from fellow team members
- GS9.** adapt to changing conditions and unexpected situations
- GS10.** take quick decisions during emergencies

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Check the exterior of the tube trailer</i>	13	26	-	5
PC1. conduct a thorough walk-around inspection of the trailer to ensure roadworthiness, noting any visible cracks, dents, leaks, loose connections or damage to the trailer body, frame, and welds	1	2	-	1
PC2. visually inspect the valves, connections, and pressure gauges	1	2	-	-
PC3. inspect for proper tire pressure, tread wear, and any cuts, bulges, or foreign objects lodged in the tire tread, loose lug nuts, cracks, or damage to the wheel rims	1	2	-	1
PC4. test the brakes for proper operation and ensure the parking brake is functional	1	2	-	1
PC5. listen for air leaks and ensure brake lights activate when the pedal is pressed	1	2	-	-
PC6. check all headlights, taillights, brake lights, turn signals, hazard lights, and reflectors are clean, functional, and correctly aligned	1	2	-	-
PC7. ensure fire extinguishers are appropriately mounted and charged, reflective triangles and warning signs are readily accessible, and spill containment kit is present and complete	1	2	-	-
PC8. check that the trailer is properly grounded using the dedicated grounding cable and wheel chocks	1	2	-	-
PC9. verify whether all hazardous material signs and labels are clean, undamaged, and clearly visible	1	2	-	-
PC10. ensure that windshield, windows, and mirrors are clean for better visuals	1	2	-	-
PC11. ensure that there are no flammable items, greasy rags or bottled fuel in the vehicle	1	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. check trailer security by performing a 'tug test' or chocking wheels and the free play test to check the steering	1	2	-	1
PC13. ensure that proper warning signs are fixed in the trailer according to regulations, e.g., a 'highly inflammable' warning sign in the form of a Tape or Plate having a retro-reflective background	1	2	-	1
<i>Examine the interior of the trailer</i>	7	15	-	3
PC14. confirm that pressure relief valves are sealed	1	2	-	-
PC15. ensure that all pressure gauges are functioning correctly and displaying accurate readings	1	2	-	-
PC16. visually inspect all valves and connections for leaks, damage, or loose fittings	1	2	-	1
PC17. use appropriate tools to tighten any loose connections	1	2	-	-
PC18. check for wear, cracks, or leaks in all hoses and piping, ensuring proper routing and secure connections	1	3	-	1
PC19. check the fuel gauge for fuel availability	1	2	-	1
PC20. check fire extinguishers, alarms, and emergency shutdown systems regularly	1	2	-	-
<i>Check the hydrogen cylinders</i>	5	11	-	1
PC21. examine each cylinder or tube for signs of damage, corrosion, or any anomalies	1	2	-	1
PC22. verify that cylinders are securely fastened to the trailer and aligned properly	1	2	-	-
PC23. ensure that all seals are intact and adequately seated to prevent gas leaks	1	2	-	-
PC24. verify pressure readings on all gaseous hydrogen tanks are within acceptable range (20-60 MPa) as per the manufacturer's specifications/ SOP	1	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC25. ensure the tow vehicle is compatible with the weight and specifications of the Green Hydrogen Tube Trailer	1	2	-	-
<i>Verify necessary permits and documents</i>	5	8	-	1
PC26. verify whether all essential permits and licenses for transporting hazardous materials are current and available	1	2	-	1
PC27. ensure that the trailer registration, fitness certification, insurance documents, copy of registration certificate, road tax and trip/cargo-related documents like MSDS, e-way bill, trip sheet, delivery orders, etc., are available	2	2	-	-
PC28. record all pre-operation checks in a designated logbook, noting any discrepancies or concerns	1	2	-	-
PC29. report actual or possible defects to the service/ transportation supervisor in enough detail so they can diagnose the problem	1	2	-	-
NOS Total	30	60	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3903
NOS Name	Perform pre-operation checks of the tube trailer
Sector	Logistics
Sub-Sector	Land Transportation
Occupation	Green Hydrogen Operations/ Handling, Transport Operations , Vehicle Operations
NSQF Level	4
Credits	3
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024

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LSC/N3904: Coordinate the loading and unloading process

Description

This unit involves developing and implementing a comprehensive set of competencies for coordinating the loading and unloading of green hydrogen tubes at designated points.

Scope

The scope covers the following :

- Coordinate the loading/unloading process
- Maintain records and receipts

Elements and Performance Criteria

Coordinate the loading/unloading process

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

- PC1.** report to duty adhering to the shift timings
- PC2.** obtain and review delivery orders, including site details, contact information, and safety protocols
- PC3.** identify any specific requirements for loading and unloading green hydrogen tube trailers
- PC4.** coordinate with relevant stakeholders to ensure alignment with operational schedules
- PC5.** establish clear communication with personnel at the loading and unloading points via phone or in-person to establish a precise sequence and timeline for operations
- PC6.** observe loading and unloading activities closely to identify any potential safety risks or procedural deviations
- PC7.** ensure that all safety protocols are followed during the process; intervene immediately to correct any unsafe practices or ensure adherence to established protocols
- PC8.** wear all necessary PPE as per regulations and company protocols, such as safety glasses, gloves, safety boots, and a high visibility vest
- PC9.** ensure the trailer is level and stable before starting loading/unloading
- PC10.** engage parking brakes securely before exiting the vehicle
- PC11.** chock wheels, if necessary, especially on slopes
- PC12.** monitor pressure gauges, temperature sensors, and other critical indicators during operations
- PC13.** verify the availability and functionality of safety equipment at loading and unloading points
- PC14.** implement emergency response procedures and coordinate with relevant authorities if needed
- PC15.** identify and address any discrepancies between expected and actual tube quantities or specifications
- PC16.** ensure that the cylinders are placed in such a way that results in uniform distribution of consignment load over trailer axles and an even weight distribution over its floor area, ensuring that the center of gravity is maintained as low as possible

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PC17. ensure that the load is secured with fastenings, lashings, strappings, etc., and covered according to the route's weather conditions

PC18. report any observed damage to the trailer or tubes to relevant personnel immediately

Maintain records and receipts

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

PC19. keep accurate records of loading and unloading activities, including dates and times, quantities, pressure readings, and names of personnel involved

PC20. collect and secure fuel bills and toll receipts (if not using Fast Tag) for reconciliation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. physical and chemical properties of hydrogen gas, its associated risks, and safety protocols for handling and transporting it

KU2. specific features and functionalities of the trailer, including pressure gauges, valves, safety systems, and cargo compartment configurations

KU3. relevant regulations and standards governing the transportation of hazardous materials

KU4. potential hazards and risks associated with the transportation of green hydrogen

KU5. emergency response protocols, including communication with emergency services and authorities

KU6. loading and unloading procedures specific to green hydrogen tubes

KU7. equipment and tools used in the loading and unloading processes

KU8. troubleshooting techniques for addressing common issues during loading and unloading

KU9. different types of loading and unloading facilities and their operational requirements

KU10. toll payment regulations

Generic Skills (GS)

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

GS1. clearly convey information to team members, loading/unloading personnel, and other stakeholders, both verbally and in writing

GS2. actively listen and understand instructions and information and respond appropriately

GS3. set priorities and manage time effectively

GS4. make timely and informed decisions in diverse situations

GS5. build rapport and maintain positive relationships with colleagues and stakeholders

GS6. work collaboratively with other drivers, loading/unloading staff, and support personnel

GS7. adapt to changing work environments and procedures

GS8. continuously learn new skills and knowledge

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Coordinate the loading/unloading process</i>	26	54	-	9
PC1. report to duty adhering to the shift timings	2	3	-	1
PC2. obtain and review delivery orders, including site details, contact information, and safety protocols	1	3	-	-
PC3. identify any specific requirements for loading and unloading green hydrogen tube trailers	1	3	-	1
PC4. coordinate with relevant stakeholders to ensure alignment with operational schedules	2	3	-	1
PC5. establish clear communication with personnel at the loading and unloading points via phone or in-person to establish a precise sequence and timeline for operations	1	3	-	1
PC6. observe loading and unloading activities closely to identify any potential safety risks or procedural deviations	1	3	-	-
PC7. ensure that all safety protocols are followed during the process; intervene immediately to correct any unsafe practices or ensure adherence to established protocols	1	3	-	-
PC8. wear all necessary PPE as per regulations and company protocols, such as safety glasses, gloves, safety boots, and a high visibility vest	2	3	-	1
PC9. ensure the trailer is level and stable before starting loading/unloading	1	3	-	-
PC10. engage parking brakes securely before exiting the vehicle	2	3	-	1
PC11. chock wheels, if necessary, especially on slopes	1	3	-	1
PC12. monitor pressure gauges, temperature sensors, and other critical indicators during operations	1	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. verify the availability and functionality of safety equipment at loading and unloading points	2	3	-	-
PC14. implement emergency response procedures and coordinate with relevant authorities if needed	2	3	-	1
PC15. identify and address any discrepancies between expected and actual tube quantities or specifications	2	3	-	-
PC16. ensure that the cylinders are placed in such a way that results in uniform distribution of consignment load over trailer axles and an even weight distribution over its floor area, ensuring that the center of gravity is maintained as low as possible	1	3	-	1
PC17. ensure that the load is secured with fastenings, lashings, strappings, etc., and covered according to the route's weather conditions	1	3	-	-
PC18. report any observed damage to the trailer or tubes to relevant personnel immediately	2	3	-	-
<i>Maintain records and receipts</i>	4	6	-	1
PC19. keep accurate records of loading and unloading activities, including dates and times, quantities, pressure readings, and names of personnel involved	2	3	-	-
PC20. collect and secure fuel bills and toll receipts (if not using Fast Tag) for reconciliation	2	3	-	1
NOS Total	30	60	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3904
NOS Name	Coordinate the loading and unloading process
Sector	Logistics
Sub-Sector	Land Transportation
Occupation	Green Hydrogen Operations/ Handling, Transport Operations , Vehicle Operations
NSQF Level	4
Credits	3
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024

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LSC/N3905: Drive the green hydrogen tube trailer safely and efficiently

Description

This unit is about developing the skills and competencies required for driving a green hydrogen tube trailer safely and efficiently.

Scope

The scope covers the following :

- Safely drive the green hydrogen tube trailer
- Navigate diverse routes and adapt to changing conditions
- Adhere to safety regulations and best practices

Elements and Performance Criteria

Safely drive the green hydrogen tube trailer

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

- PC1.** start the green hydrogen tube trailer in accordance with manufacturer guidelines
- PC2.** operate all controls, including brakes, accelerator, and steering, to maneuver the trailer under various conditions
- PC3.** change gear smoothly in coordination with steering control and acceleration
- PC4.** adhere to all traffic laws and regulations specific to transporting hazardous materials
- PC5.** perform various defensive driving techniques regarding overtaking, parking, stopping, driving in the rain, driving at night, etc, wherever required
- PC6.** overtake other road users legally, safely and by using the correct signalling
- PC7.** maintain appropriate speed and distance from other vehicles, taking into account the characteristics of transporting green hydrogen
- PC8.** follow precautions and road signs to avoid roll over, braking hazards and possible accidents
- PC9.** use indicators, horn and arm signals to signal as per the traffic requirements
- PC10.** engage parking brakes when parking the trailer, especially on gradients
- PC11.** follow the guidelines of the organization if the vehicle breaks down and respond accordingly
- PC12.** avoid idling the engine beyond a reasonable limit

Navigate diverse routes and adapt to changing conditions

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

- PC13.** utilize navigation tools like Google Maps and NavIC accurately, accounting for potential route closures or deviations
- PC14.** communicate route plans, estimated arrival times and delays to relevant personnel
- PC15.** maintain awareness of restricted zones and check the availability of necessary permits for specific routes
- PC16.** adapt driving strategies to different terrains and weather conditions, ensuring safe and efficient travel

Adhere to safety regulations and best practices

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

- PC17.** avoid distractions while driving, including cell phone use or excessive radio volume
- PC18.** refrain from aggressive driving practices such as tailgating, speeding, or sudden lane changes
- PC19.** change lanes safely at appropriate speed and observe traffic conditions
- PC20.** ensure there are no incoming bikes, pedestrians, or other traffic while opening the door of the trailer
- PC21.** maintain composure and react calmly in emergencies such as tyre blowouts, brake failures, hydrogen leaks or vehicle breakdown
- PC22.** monitor critical indicators, such as pressure gauges, temperature sensors, and brake performance, during operation
- PC23.** report any incidents, accidents, breakdowns, etc., during driving, if any, to the supervisor/authorized person

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organizational guidelines on safe driving practices
- KU2.** physical and chemical properties of hydrogen gas, its associated risks, and safety protocols for handling and transporting it
- KU3.** specific features and functionalities of the trailer
- KU4.** operation of controls, including brakes, accelerator, and steering
- KU5.** levers, switches, instrument panel and various controls to operate the trailer properly
- KU6.** safe driving techniques and traffic regulations
- KU7.** traffic regulations, especially those specific to transporting hazardous materials, including speed limits, road markings, and hazardous material placards
- KU8.** review and interpret route plans
- KU9.** use of navigation tools like Google Maps and NavIC
- KU10.** dangers of fatigue while driving
- KU11.** elements of good driving habits for obtaining fuel efficiency
- KU12.** importance of creating an environment of trust and mutual respect
- KU13.** problem escalation procedure

Generic Skills (GS)

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

- GS1.** communicate effectively in the local language
- GS2.** clearly understand and execute instructions from supervisors and written procedures
- GS3.** maintain composure and focus in challenging situations
- GS4.** conduct oneself with courtesy and professionalism when interacting with authorities and stakeholders



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- GS5.** keep oneself updated with the new vehicle technologies and functionalities
- GS6.** communicate and cooperate with others in the team for better results
- GS7.** work in a team in order to achieve better results
- GS8.** seek assistance from fellow team members
- GS9.** identify immediate or temporary solutions to resolve delays and crisis situations
- GS10.** resolve conflict while dealing with public

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Safely drive the green hydrogen tube trailer</i>	16	31	-	5
PC1. start the green hydrogen tube trailer in accordance with manufacturer guidelines	1	2	-	1
PC2. operate all controls, including brakes, accelerator, and steering, to maneuver the trailer under various conditions	2	3	-	-
PC3. change gear smoothly in coordination with steering control and acceleration	1	3	-	1
PC4. adhere to all traffic laws and regulations specific to transporting hazardous materials	1	3	-	-
PC5. perform various defensive driving techniques regarding overtaking, parking, stopping, driving in the rain, driving at night, etc, wherever required	2	3	-	1
PC6. overtake other road users legally, safely and by using the correct signalling	2	3	-	-
PC7. maintain appropriate speed and distance from other vehicles, taking into account the characteristics of transporting green hydrogen	1	2	-	-
PC8. follow precautions and road signs to avoid roll over, braking hazards and possible accidents	1	3	-	-
PC9. use indicators, horn and arm signals to signal as per the traffic requirements	1	3	-	1
PC10. engage parking brakes when parking the trailer, especially on gradients	1	2	-	1
PC11. follow the guidelines of the organization if the vehicle breaks down and respond accordingly	1	2	-	-
PC12. avoid idling the engine beyond a reasonable limit	2	2	-	-
<i>Navigate diverse routes and adapt to changing conditions</i>	5	11	-	2

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. utilize navigation tools like Google Maps and NavIC accurately, accounting for potential route closures or deviations	2	3	-	1
PC14. communicate route plans, estimated arrival times and delays to relevant personnel	1	3	-	-
PC15. maintain awareness of restricted zones and check the availability of necessary permits for specific routes	1	2	-	-
PC16. adapt driving strategies to different terrains and weather conditions, ensuring safe and efficient travel	1	3	-	1
<i>Adhere to safety regulations and best practices</i>	9	18	-	3
PC17. avoid distractions while driving, including cell phone use or excessive radio volume	1	2	-	-
PC18. refrain from aggressive driving practices such as tailgating, speeding, or sudden lane changes	2	3	-	1
PC19. change lanes safely at appropriate speed and observe traffic conditions	1	3	-	1
PC20. ensure there are no incoming bikes, pedestrians, or other traffic while opening the door of the trailer	1	2	-	-
PC21. maintain composure and react calmly in emergencies such as tyre blowouts, brake failures, hydrogen leaks or vehicle breakdown	1	2	-	-
PC22. monitor critical indicators, such as pressure gauges, temperature sensors, and brake performance, during operation	2	3	-	-
PC23. report any incidents, accidents, breakdowns, etc., during driving, if any, to the supervisor/authorized person	1	3	-	1
NOS Total	30	60	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3905
NOS Name	Drive the green hydrogen tube trailer safely and efficiently
Sector	Logistics
Sub-Sector	Land Transportation
Occupation	Green Hydrogen Operations/ Handling, Transport Operations , Vehicle Operations
NSQF Level	4
Credits	3
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024

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LSC/N3906: Perform preventive maintenance and upkeep of the tube trailer

Description

This unit is about maintaining and upkeeping the green hydrogen tube trailer.

Scope

The scope covers the following :

- Conduct routine inspections and maintenance
- Perform basic diagnosis and maintenance

Elements and Performance Criteria

Conduct routine inspections and maintenance

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

- PC1.** track vehicle running kilometers to assess the required service
- PC2.** ensure that the Original Equipment Manufacturer's (OEM) recommended procedure and checklist is followed for routine servicing
- PC3.** conduct regular visual inspections of the entire green hydrogen tube trailer, checking for signs of wear, damage, or corrosion
- PC4.** check the condition of the braking system, including brake pads, lines, and hydraulic components
- PC5.** inspect the trailer's coupling mechanism for proper functioning and secure attachment to the towing vehicle
- PC6.** perform scheduled preventive maintenance tasks, such as lubrication, greasing, and filter changes
- PC7.** perform basic repairs like tyre changes, light bulb replacements, and minor hose connections
- PC8.** replace minor worn-out parts and components, adhering to safety protocols and manufacturer guidelines
- PC9.** monitor and address issues related to suspension systems, including springs, shocks, and other components
- PC10.** replenish coolants, lubricants, and fluids
- PC11.** perform essential battery maintenance, including cleaning terminals and checking electrolyte levels

Perform basic diagnosis and maintenance

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

- PC12.** ensure that no diagnosis on the vehicle is performed when it is running or is still hot
- PC13.** detect any unusual noises, vibrations, smells, or visual indicators of potential problems during operation
- PC14.** check the instrument panel and control gauge to identify out-of-range readings to find the defect/cause of failure

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- PC15.** carry out diagnostic procedures as per the troubleshooting checklist prepared by the Original Equipment Manufacturer (OEM)
- PC16.** report major malfunctions or issues beyond personal repair scope to supervisors and maintenance personnel immediately
- PC17.** conduct functional tests of safety systems, such as emergency shutdown mechanisms and pressure release systems
- PC18.** test the operation of the trailer's brakes, ensuring they respond appropriately and meet safety standards
- PC19.** document observations, findings, and actions taken during inspections and repairs in logbooks

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** job-specific documents, e.g. daily maintenance checklist
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** different parts of the trailer, their functions, and proper identification of key components
- KU4.** correct maintenance procedures for the trailer
- KU5.** basic troubleshooting principles for electrical systems, pressure gauges, and other operational issues
- KU6.** criteria for evaluating the results of functional tests and making necessary repairs
- KU7.** the hierarchy for reporting identified problems
- KU8.** emergency shut-off systems and alarms
- KU9.** levers, switches, instrument panels and various controls
- KU10.** steering and transmission systems
- KU11.** different types of hydraulic mechanism
- KU12.** instrument panel, their location and operation
- KU13.** safe practices for handling and disposing of any hazardous materials encountered during maintenance

Generic Skills (GS)

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

- GS1.** communicate clearly and concisely with colleagues, supervisors, and stakeholders
- GS2.** clearly understand and execute instructions from supervisors and written maintenance manuals
- GS3.** report observations, findings, and maintenance needs clearly and concisely to supervisors and colleagues
- GS4.** adapt to changing conditions or unexpected findings during maintenance procedures
- GS5.** manage time effectively to complete routine inspections and maintenance tasks within prescribed schedules
- GS6.** respond calmly and effectively in emergencies, following established protocols



Qualification Pack

- GS7.** discuss possible solutions with the supervisor for problem-solving
- GS8.** use reasoning skills to identify and resolve basic problems
- GS9.** resolve conflict while dealing with public
- GS10.** stay updated on new maintenance procedures, safety protocols, and technological advancements for tube trailers

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Conduct routine inspections and maintenance</i>	17	35	-	6
PC1. track vehicle running kilometers to assess the required service	2	3	-	1
PC2. ensure that the Original Equipment Manufacturer's (OEM) recommended procedure and checklist is followed for routine servicing	1	3	-	-
PC3. conduct regular visual inspections of the entire green hydrogen tube trailer, checking for signs of wear, damage, or corrosion	2	3	-	-
PC4. check the condition of the braking system, including brake pads, lines, and hydraulic components	1	3	-	-
PC5. inspect the trailer's coupling mechanism for proper functioning and secure attachment to the towing vehicle	2	4	-	1
PC6. perform scheduled preventive maintenance tasks, such as lubrication, greasing, and filter changes	2	3	-	1
PC7. perform basic repairs like tyre changes, light bulb replacements, and minor hose connections	2	3	-	1
PC8. replace minor worn-out parts and components, adhering to safety protocols and manufacturer guidelines	1	3	-	-
PC9. monitor and address issues related to suspension systems, including springs, shocks, and other components	1	3	-	1
PC10. replenish coolants, lubricants, and fluids	1	3	-	-
PC11. perform essential battery maintenance, including cleaning terminals and checking electrolyte levels	2	4	-	1
<i>Perform basic diagnosis and maintenance</i>	13	25	-	4

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. ensure that no diagnosis on the vehicle is performed when it is running or is still hot	1	3	-	1
PC13. detect any unusual noises, vibrations, smells, or visual indicators of potential problems during operation	1	3	-	1
PC14. check the instrument panel and control gauge to identify out-of-range readings to find the defect/cause of failure	1	3	-	-
PC15. carry out diagnostic procedures as per the troubleshooting checklist prepared by the Original Equipment Manufacturer (OEM)	2	4	-	1
PC16. report major malfunctions or issues beyond personal repair scope to supervisors and maintenance personnel immediately	2	3	-	-
PC17. conduct functional tests of safety systems, such as emergency shutdown mechanisms and pressure release systems	2	3	-	-
PC18. test the operation of the trailer's brakes, ensuring they respond appropriately and meet safety standards	2	3	-	-
PC19. document observations, findings, and actions taken during inspections and repairs in logbooks	2	3	-	1
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3906
NOS Name	Perform preventive maintenance and upkeep of the tube trailer
Sector	Logistics
Sub-Sector	Land Transportation
Occupation	Green Hydrogen Operations/ Handling, Transport Operations , Vehicle Operations
NSQF Level	4
Credits	3
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024

Qualification Pack

LSC/N3907: Adhere to health, safety and emergency protocols while carrying green hydrogen

Description

This unit is about knowledge and practices relating to health, safety and security towards self, others, tube trailers and the environment.

Scope

The scope covers the following :

- Maintain personal health and fitness for safe driving
- Practice safe work procedures and hazard prevention
- Respond effectively to emergencies and incidents
- Maintain a safe and clean vehicle

Elements and Performance Criteria

Maintain personal health and fitness for safe driving

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

- PC1.** maintain adequate physical fitness and stamina to handle the physical demands of driving and operating the trailer
- PC2.** avoid eating and drinking while driving
- PC3.** plan for rest stops at regular intervals and get sufficient sleep within prescribed limits to avoid fatigue and to remain alert while driving
- PC4.** stay calm and composed during difficult situations like traffic jams, accidents and strictly avoid any argument with fellow commuters and other public
- PC5.** report any health concerns that may affect driving ability or safety to supervisors immediately
- PC6.** avoid driving under the influence of alcohol, drugs, or medication that may impair judgment or reaction time

Practice safe work procedures and hazard prevention

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

- PC7.** securely fasten seat belts and avoid distractions while driving
- PC8.** ensure that loading does not exceed the manufacturer's specifications and legal limits
- PC9.** use appropriate PPE, such as safety goggles/face shield, chemical-resistant gloves, flame-resistant high-visibility clothing, safety shoes/boots and respiratory protection during maintenance and emergencies
- PC10.** confirm the availability of a basic first aid kit in the trailer cabin
- PC11.** manage emergency firefighting situations during transit, such as handling electrical fires, hydrogen fires, etc., prioritizing self-safety
- PC12.** respond to a fire and use appropriate firefighting equipment

Respond effectively to emergencies and incidents

Qualification Pack

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

- PC13.** remain calm and follow emergency response procedures in case of hydrogen leaks, fires, or accidents
- PC14.** evacuate the area and notify authorities immediately, providing accurate information about the incident
- PC15.** assist emergency personnel and cooperate with investigations as required

Maintain a safe and clean vehicle

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

- PC16.** regularly clean the interior and exterior of the trailer, ensuring optimal hygiene and preventing corrosion
- PC17.** ensure proper ventilation and drainage within the trailer cabin to avoid moisture buildup and foul odour
- PC18.** report any unsafe working conditions or near misses to supervisors for corrective action

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** importance of health and hygiene practices
- KU2.** importance of recognizing and managing fatigue, stress, and anxiety to maintain driving performance
- KU3.** properties and characteristics of green hydrogen, including its flammability and potential risks
- KU4.** types of PPE required for safe operation
- KU5.** potential hazards and preventive measures
- KU6.** emergency response procedures for situations such as hydrogen leaks, fires, or accidents
- KU7.** safety features of the green hydrogen tube trailer, including emergency shutdown systems and pressure relief devices
- KU8.** regulations for handling and disposing of hazardous materials, including hydrogen leaks and spills
- KU9.** possess basic knowledge of first aid and CPR to handle minor injuries or emergencies if necessary

Generic Skills (GS)

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

- GS1.** effectively communicate safety concerns, incidents, and information to team members, supervisors, and relevant authorities
- GS2.** read instructions, guidelines/procedures
- GS3.** pay attention to details during pre-drive safety inspections and safety-related tasks
- GS4.** foster a safety-conscious mindset among team members
- GS5.** complete tasks efficiently and accurately within the stipulated time
- GS6.** adapt to changing conditions or unexpected safety-related situations



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- GS7.** assess the problem, evaluate the possible solution(s) and use an optimum /best possible solution(s)
- GS8.** work with supervisors/team members to carry out work-related tasks
- GS9.** identify immediate or temporary solutions to resolve delays and crisis situations
- GS10.** resolve conflict while dealing with public

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain personal health and fitness for safe driving</i>	10	20	-	3
PC1. maintain adequate physical fitness and stamina to handle the physical demands of driving and operating the trailer	2	3	-	1
PC2. avoid eating and drinking while driving	1	3	-	-
PC3. plan for rest stops at regular intervals and get sufficient sleep within prescribed limits to avoid fatigue and to remain alert while driving	2	3	-	1
PC4. stay calm and composed during difficult situations like traffic jams, accidents and strictly avoid any argument with fellow commuters and other public	1	3	-	-
PC5. report any health concerns that may affect driving ability or safety to supervisors immediately	2	4	-	1
PC6. avoid driving under the influence of alcohol, drugs, or medication that may impair judgment or reaction time	2	4	-	-
<i>Practice safe work procedures and hazard prevention</i>	10	20	-	4
PC7. securely fasten seat belts and avoid distractions while driving	2	3	-	1
PC8. ensure that loading does not exceed the manufacturer's specifications and legal limits	1	4	-	-
PC9. use appropriate PPE, such as safety goggles/face shield, chemical-resistant gloves, flame-resistant high-visibility clothing, safety shoes/boots and respiratory protection during maintenance and emergencies	2	4	-	1
PC10. confirm the availability of a basic first aid kit in the trailer cabin	1	3	-	-
PC11. manage emergency firefighting situations during transit, such as handling electrical fires, hydrogen fires, etc., prioritizing self-safety	2	3	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. respond to a fire and use appropriate firefighting equipment	2	3	-	1
<i>Respond effectively to emergencies and incidents</i>	5	10	-	2
PC13. remain calm and follow emergency response procedures in case of hydrogen leaks, fires, or accidents	1	4	-	-
PC14. evacuate the area and notify authorities immediately, providing accurate information about the incident	2	3	-	1
PC15. assist emergency personnel and cooperate with investigations as required	2	3	-	1
<i>Maintain a safe and clean vehicle</i>	5	10	-	1
PC16. regularly clean the interior and exterior of the trailer, ensuring optimal hygiene and preventing corrosion	2	3	-	-
PC17. ensure proper ventilation and drainage within the trailer cabin to avoid moisture buildup and foul odour	1	3	-	-
PC18. report any unsafe working conditions or near misses to supervisors for corrective action	2	4	-	1
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3907
NOS Name	Adhere to health, safety and emergency protocols while carrying green hydrogen
Sector	Logistics
Sub-Sector	Land Transportation
Occupation	Green Hydrogen Operations/ Handling, Transport Operations , Vehicle Operations
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024

Qualification Pack

DGT/VSQ/N0101: Employability Skills (30 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

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

PC1. understand the significance of employability skills in meeting the job requirements

Constitutional values - Citizenship

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

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

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

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

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

PC4. speak with others using some basic English phrases or sentences

Communication Skills

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

PC5. follow good manners while communicating with others

PC6. work with others in a team

Qualification Pack

Diversity & Inclusion

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

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

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

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

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

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

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

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

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

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services

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- KU10.** how to compute income and expenses
- KU11.** importance of maintaining safety and security in financial transactions
- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024

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) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion
5. To pass the Qualification Pack, every trainee should score a minimum of 70% for NSQF level 4 & above job roles and 50% for NSQF level 1 to 3 job roles
6. In case of unsuccessful completion, the trainee may seek re-assessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level : 70

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

Minimum Passing % at NOS Level: 50

(Please note: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N3903.Perform pre-operation checks of the tube trailer	30	60	-	10	100	20
LSC/N3904.Coordinate the loading and unloading process	30	60	-	10	100	20
LSC/N3905.Drive the green hydrogen tube trailer safely and efficiently	30	60	-	10	100	20
LSC/N3906.Perform preventive maintenance and upkeep of the tube trailer	30	60	-	10	100	20
LSC/N3907.Adhere to health, safety and emergency protocols while carrying green hydrogen	30	60	-	10	100	10
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	10
Total	170	330	-	50	550	100



Qualification Pack

Acronyms

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

Qualification Pack

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.

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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.