Technical and Vocational Education and Training (TVET) Council

Occupational Standards of Competence

Stevedoring Operations - Heavy Equipment Operator

Level 2

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Qualification Overview

NVQB

in

Stevedoring Operations – Heavy Equipment Operator

Level 2

Technical and Vocational Education and Training (TVET) Council
Version 1.0 October 2015

NVQB in Stevedoring Operations – Heavy Equipment Operator Level 2

Qualification Overview

The qualification is designed to develop and improve the technical skills of operators in the stevedoring industry. Candidates at this level must have an understanding of the operations within the Barbados Port Inc., such as preparing and transferring cargo, checking and assessing the operational capability of equipment, handling dangerous goods and hazardous substances and operating heavy lifting equipment. The qualification may also assist persons seeking entry into the manufacturing sector who have to operate heavy trucks and machinery.

Like all NVQs this qualification is competence based. This means that it is linked to the candidates' ability to competently perform a range of tasks connected with their work. Candidates must plan a programme of development and assessment with their assessor and compile a portfolio of evidence to prove that they are competent in their work role.

Who is this qualification for?

The NVQB in Stevedoring Operations – Heavy Equipment Operator is aimed at persons employed as heavy equipment operators in the Barbados Port Inc. The qualification is designed for candidates at operator level who have responsibility for operating heavy lifting equipment. This list is not exhaustive and only serves to illustrate the breadth of the qualification.

Jobs within the occupational area

Forklift drivers
Stevedores
Tractor operators
Heavy lifting equipment operators

DRAFT NATIONAL VOCATIONAL QUALIFICATION STRUCTURE

STEVEDORING OPERATIONS – HEAVY EQUIPMENT OPERATOR – LEVEL 2

The qualification is made up of ten (10) mandatory units. To achieve a full award, candidates must complete **all** ten (10) mandatory units.

Mandatory units (All must be completed)		**CODES**
1.	**Ensure your own actions reduce risks to safety and health**	**U18103**
1.1	Identify the hazards and evaluate the risks in your workplace	
1.2	Reduce the risks to safety and health in your workplace	
2.	**Handle dangerous goods and hazardous substances**	**U75402**
2.1	Identify requirements	
2.2	Follow safety and emergency procedures	
2.3	Handle dangerous goods and hazardous substances	
3.	**Determine mass, area and quantify dimensions**	**U75502**
3.1	Identify types of loads	
3.2	Estimate loads for transportation or storage	
4.	**Prepare and transfer cargo**	**U75602**
4.1	Prepare for transfer of cargo	
4.2	Check lifting equipment and securing devices	
4.3	Transfer cargo	
5.	**Check and assess the operational capability of equipment**	**U75702**
5.1	Inspect and assess equipment	
5.2	Test the operational capability of equipment	
5.3	Identify and assess faults	
5.4	Record and report results of inspection and testing	
6.	**Operate a forklift**	**U75802**
6.1	Inspect and assess forklift	
6.2	Drive forklift	
6.3	Operate forklift to handle loads	
6.4	Monitor site conditions	
6.5	Monitor and maintain forklift performance	

Mandatory Units (All must be completed) **CODES**

7. Operate a reach stacker **U75902**

7.1 Plan for current working conditions
7.2 Use controls and operating systems
7.3 Locate load and identify load characteristics
7.4 Move materials and loads
7.5 Monitor and operate controls
7.6 Stop, park and secure equipment

8. Operate a straddle carrier **U76002**

8.1 Plan for current working conditions
8.2 Use controls and operating systems
8.3 Locate load and identify load characteristics
8.4 Move materials and loads
8.5 Monitor and operate controls
8.6 Stop, park and secure straddle carrier

9. Operate a crane **U76102**

9.1 Plan for current working conditions
9.2 Use controls and operating systems
9.3 Locate load and identify load characteristics
9.4 Move materials and loads
9.5 Monitor and operate controls
9.6 Stop, park and secure crane

10. Operate a tractor unit with trailer **U76202**

10.1 Inspect and assess tractor unit
10.2 Hitch trailer to tractor unit
10.3 Drive tractor unit with trailer
10.4 Stop, park and secure tractor unit with trailer

U18103 Ensure your own actions reduce risks to safety and health

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to reduce risks to safety and health in the workplace. It covers identifying hazards, evaluating risks and ensuring that candidates examine their own actions to prevent or minimize risks to safety and health.

The unit is for everyone in work, whether paid, unpaid, full-time or part-time. It does not require the candidate to undertake a full risk assessment but to have an appreciation of the significant risks in the workplace, knowing how to identify them and what actions to take.

ELEMENT	PERFORMANCE CRITERIA
To be competent you must achieve the following:	
1. Identify hazards and evaluate risks	1.1 Correctly name and locate the persons responsible for safety and health in the workplace according to organizational procedures.
	1.2 Identify **organizational policies** relevant to working practices.
	1.3 Identify working practices and **hazards** in the workplace which may be harmful to yourself or others.
	1.4 Evaluate which potentially harmful working practices and **hazards** in the workplace that are of the highest **risk** to yourself or others.
	1.5 Report those **hazards** which present a high **risk** to persons responsible for safety and health in the workplace
	1.6 Deal with hazards that present low **risks** in accordance with **organizational policies** and legal requirements.

2. Reduce risks to safety and health	2.1 Carry out working practices in accordance with legal requirements and **organizational policies**, while ensuring the safety and health of yourself and others.
	2.2 Identify and follow up-to-date **organizational policies** for your own role.
	2.3 Rectify safety and health **risks** within your capability and the scope of your own job role.
	2.4 Pass on any suggestions for reducing **risks** to safety and health within your job role to the responsible persons.
	2.5 Demonstrate personal conduct that does not endanger the safety and health of yourself or others.
	2.6 Use equipment, materials, **agents and products** correctly and safely in accordance with **organizational policies,** and suppliers' manufacturers' instructions.
	2.7 Report any differences between **organizational policies** and suppliers' or manufacturers' instructions according to organizational procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Organizational policies**:

    - Health and safety
    - Fire
    - Evacuation

2. **Hazards:**

    - Physical
    - Environmental
    - Chemical
    - Administrative

3. **Risk:**

    - Faulty machinery or equipment
    - Use of biological agents or substances
    - Non-compliant administrative and industrial working practices
    - Unsafe behavior
    - Accidents
    - Environmental factors

4. **Agents and products:**

    - Chemical
    - Biological

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. Who are the persons responsible for safety and health in the workplace and the organizational procedures for contacting them.
2. What are the organizational policies relevant to safe working practices.
3. What are your personal responsibilities in relation to maintaining safety and health in your work role and within the workplace.
4. How to rectify safety and health risks within your capability and the scope of your own job role.
5. How to identify working practices and hazards in the workplace which may be harmful to yourself or others.
6. What are the particular safety and health risks which may be present in your own job role and the precautions you must take.
7. Why it is important to remain alert to the presence of hazards in the whole workplace.
8. How to evaluate which potentially harmful working practices and hazards in the workplace may be of the highest risk to yourself or others
9. What are the organizational procedures for reporting potentially harmful working practices and hazards which represent a risk to yourself or others.
10. What are the organizational procedures for dealing with hazards that present low risks.
11. Why it is important to promptly deal with or report risks.
12. How to carry out working practices in accordance with legal requirements and organizational procedures.
13. How to identify and follow up-to-date procedures in your own work role.
14. How to rectify safety and health risks within your capability and the scope of your own job role.
15. What are the suppliers' and manufacturers' instructions for the safe use of equipment, materials and products.
16. How to report any differences among organizational policies, suppliers' and manufacturers' instructions according to organizational procedures.
17. How to pass on suggestions for reducing risks to safety and health within your job role to the responsible persons.
18. How to demonstrate personal conduct that does not endanger the safety and health of yourself or others. persons.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Products of work
- Observation
- Written/ oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U75402 Handle dangerous goods or hazardous substances

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to handle dangerous goods and hazardous substances.

It includes identifying the requirements for working with dangerous goods and/or hazardous substances, confirming site incident procedures, selecting handling techniques, and handling and storing dangerous goods and hazardous substances.

ELEMENT	PERFORMANCE CRITERIA
To be competent you must achieve the following:	
1. Identify requirements	1.1 Identify **dangerous goods and hazardous substances** from **relevant documentation**.
	1.2 Correctly identify and apply storage requirements for **dangerous goods and hazardous substances** according to the labelling.
	1.3 Identify and use legislative requirements for **dangerous goods and hazardous substances** in planning work activities.
	1.4 Observe handling procedures for different classes and characteristics of goods.
	1.5 Seek confirmation from **relevant persons** where **dangerous goods and hazardous substances** are not appropriately marked.
2. Follow safety and emergency procedures	2.1 Identify and confirm safety procedures with **relevant persons**.
	2.2 Select and wear **personal protective equipment** according to organizational procedures.
	2.3 Clearly identify and follow emergency reporting procedures.

		2.4 Select and operate **emergency equipment** appropriately according to the manufacturer's guidelines.
3.	Handle dangerous goods and hazardous substances	3.1 Select **handling equipment** according to identified requirements and procedures.
		3.2 Check **handling equipment** carefully for conformity according to organizational procedures and manufacturers' guidelines.
		3.3 Use appropriate handling techniques in accordance with labelling when working with dangerous goods and hazardous substances.

RANGE STATEMENT

All range statements must be assessed:

1. **Dangerous goods and hazardous substances:**

    - Corrosive substances
    - Flammable substances
    - Explosives
    - Spontaneously combustible substances
    - Toxic substances
    - Oxidizing
    - Water-reactive substances

2. **Relevant documentation:**

    - Classification labels
    - Manifests
    - Materials data sheets

3. **Relevant persons:**

    - Supervisory Staff
    - Clerical Officer

4. **Personal protective equipment (PPE):**

    - Gloves
    - Safety headwear
    - Safety footwear
    - Reflective vest
    - Safety mask
    - Protective clothing
    - Breathing apparatus
    - Safety goggles

5. **Handling equipment:**

    - Clamp attachment
    - Telescoping forklift boom
    - Fixed length forklift boom

6. **Emergency equipment:**

    - Fire extinguisher
    - Eye wash station
    - Fire hoses

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are dangerous goods and hazardous substances and how they are identified.
2. What are the storage requirements for dangerous goods and hazardous substances and how they are applied.
3. What are the legislative requirements for dangerous goods and hazardous substances.
4. What are the organizational handling and safety procedures for dangerous goods and hazardous substances.
5. How and from whom to seek confirmation when dangerous goods and hazardous substances are not appropriately marked.
6. What is personal protective equipment (PPE), where it is located and how it should be checked and worn.
7. What are the organizational emergency reporting procedures.
8. What is handling and safety equipment and how it should be selected, checked and operated.
9. What is emergency equipment and how it should be located and operated.
10. What are appropriate handling techniques and how they are applied to dangerous goods and hazardous substances.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U75502 Determine mass, area and quantify dimensions

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to determine mass and area and quantify dimensions in the stevedoring industry.

ELEMENT	PERFORMANCE CRITERIA

To be competent you must achieve the following:

1. Identify types of loads	1.1 Read **relevant documentation** to be processed and note the requirements.
	1.2 Identify the type of cargo to be processed.
	1.3 Complete appropriate documentation accurately according to workplace requirements.
2. Estimate loads for transportation or storage	2.1 Total the weight of individual items to estimate the load.
	2.2 Identify allowable load limits for **transport or storage systems**.
	2.3 Identify shapes, loads, balance characteristics, dimensions and mass.
	2.4 Estimate the area required for storage according to the dimensions of cargo.
	2.5 Calculate the total weight of individual loads for **transport or storage system**.
	2.6 Restrict loads to the allowable range.
	2.7 Spread the load to ensure safe weighting on **transport or storage systems**.

RANGE STATEMENT

All range statements must be assessed:

1. **Relevant documentation:**

   - Ship plan
   - Manifest
   - Area floor plan

2. **Transport or storage systems**:

   - Pallets
   - Trucks
   - Platforms
   - Containers
   - Trailers

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What is the relevant documentation and how it is referenced and processed.
2. What are the types of cargo and how they are processed.
3. What is the appropriate workplace documentation and how this should be completed.
4. What are transport and storage systems.
5. How to total the weight of individual items to estimate loads.
6. How to estimate loads for transport and storage.
7. What are the allowable limits for transport and storage systems and how these are identified.
8. How to identify shapes, load, balance characteristics, dimensions and mass.
9. How to estimate area required for storage.
10. What is the allowable range for loads and how it is restricted.
11. How to spread loads on transport and storage systems.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U75602 Prepare and transfer cargo

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to prepare and transfer cargo.

It includes calculating the Safe Working Load (SWL) or Working Load Limit (WLL) of lifting equipment and loads.

ELEMENT	PERFORMANCE CRITERIA
To be competent you must achieve the following:	
1. Prepare for transfer of cargo	1.1 Identify and wear **personal protective equipment** correctly according to the task.
	1.2 Prepare and maintain the work area in accordance with organizational and safety requirements.
	1.3 Identify load characteristics to determine special handling requirements.
	1.4 Establish the pathway for load transfer consistent with organizational procedures, noting obstacles and any particular safety precautions.
	1.5 Calculate the Safe Working Load (SWL) or Working Load Limit (WLL) using standardized formulae for different types of **lifting equipment** and **securing devices**.
	1.6 Check cargo and report any damage to relevant personnel.
2. Check lifting equipment and securing devices	2.1 Check **lifting equipment** and **securing devices** for conformity with organizational health and safety requirements.
	2.2 Check **securing devices** to ensure that they comply with load requirements and are correctly attached.
	2.3 Report unsafe work practices and faulty equipment in accordance with organizational procedures.

3. Transfer cargo	3.1 Lift and steady the load according to standard operating procedures.
	3.2 Transfer and set down the load, ensuring no injury to personnel or damage to equipment and cargo.
	3.3 Release **securing devices** from the load safely, ensuring no injury to personnel or damage to equipment and cargo.
	3.4 Identify and report damaged cargo according to organizational procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Personal protective equipment (PPE):**

    - Gloves
    - Safety headwear
    - Safety footwear
    - Reflective vests
    - Safety masks
    - Protective clothing
    - Breathing apparatus
    - Reflector vests
    - Safety eyewear

2. **Lifting equipment:**

    - Light forklift
    - Heavy forklift
    - Telescopic extended jib
    - Extension blades
    - Paper clamp
    - Mounted carpet boom
    - Coil lifting ram
    - Chains/wire/ropes with assorted lifting attachments

3. **Securing devices:**

    - Fibre ropes
    - Wire ropes
    - Chains
    - Webbing slings
    - Turnbuckles
    - Straps

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are the organizational and safety requirements relating to preparing and transferring cargo.
2. What is personal protective equipment (PPE), where it is located and how it is checked and worn.
3. How to prepare and maintain the work area for transferring cargo.
4. What are load characteristics and special handling requirements and how they are identified and determined.
5. How to detect and report unsafe work practices and faulty equipment.
6. What are Safe Working Loads (SWL) and Work Load Limits (WLL) and how they are calculated.
7. What is lifting equipment and how it is checked.
8. What are securing devices and how they are checked.
9. How are securing devices attached and released from the load.
10. How to lift, steady and transfer loads.
11. How to identify and report damaged cargo.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U75702 Check and assess the operational capability of equipment

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to check and assess the operational capability of equipment, to ensure that all specified safety requirements are met and that the vehicle is operational in accordance with the requirements of the workplace and relevant authorities.

ELEMENT	PERFORMANCE CRITERIA
To be competent you must achieve the following:	
1. Inspect and assess equipment	1.1 Inspect equipment prior to start-up in accordance with pre-operational functional safety check procedures.
	1.2 Check components of equipment in accordance with pre-operational functional safety check procedures.
	1.3 Carry out inspection procedures according to the manufacturer's specifications and organizational procedures.
2. Test the operational capability of equipment	2.1 Test equipment and components after start-up in accordance with the manufacturer's specifications.
	2.2 Follow testing procedures according to the manufacturer's specifications and organizational procedures.
	2.3 Check **warning systems** for operational effectiveness.
3. Identify and assess faults	3.1 Identify faults and assess their potential effect on the operation of the equipment.
	3.2 Report faults that may affect the safe operation of the equipment to the appropriate personnel for rectification.
4. Record and report results of inspection and testing	4.1 Report the results of inspection and testing accurately in accordance with regulatory requirements and organizational procedures.

4.2 Keep clear, concise and unambiguous records in accordance with organizational procedures.

4.3 Make clear reference to any items that may affect the future safety of the equipment.

RANGE STATEMENT

All range statements must be assessed:

1. **Warning systems:**

    - Instruments
    - Gauges
    - Alarms (auditory and visual)

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are the pre-operational functional safety check procedures.
2. What are the manufacturer's specifications and the organizational procedures relating to inspection, testing and safety.
3. How to inspect and test equipment and check its components.
4. What are warning systems and how they are checked.
5. What are faults and how they are identified and assessed.
6. How and to whom are faults reported.
7. What are the regulatory requirements relating to reporting results of inspection and testing.
8. How are results of inspection and testing reported.
9. How records are kept.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on one occasion for each category of equipment.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U75802 Operate a forklift

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to operate a forklift to perform operations, to ensure that all specified safety requirements are met and that the vehicle is operating in compliance with the requirements of the workplace and relevant authorities.

ELEMENT	PERFORMANCE CRITERIA
To be competent you must achieve the following:	
1. Inspect and assess forklift	1.1 Check the condition of the forklift for compliance with organizational requirements regarding safety, **warning systems**, the manufacturer's specifications and the nature of the load-shifting task.
	1.2 Check **attachments** to ensure the appropriate adjustment and operation in accordance with the manufacturer's specifications.
	1.3 Adjust mirrors, seats and seatbelts for safe operation by the driver.
	1.4 Report faults or damage to the appropriate authority in accordance with organizational procedures.
2. Drive a forklift	2.1 Start, steer, manoeuvre, position and stop the forklift in accordance with regulations and the manufacturer's instructions.
	2.2 Manage the engine power to ensure efficiency and performance and to minimize engine and gear damage.
	2.3 Identify and avoid or control operational **hazards** by applying defensive driving and appropriate hazard control techniques.
	2.4 Drive the forklift in reverse, maintaining visibility and achieving accurate positioning.
	2.5 Park, shut down and secure the forklift in accordance with the manufacturer's

	specifications and organizational procedures.
3. Operate a forklift to handle loads	3.1 Plan the lifting task to be undertaken and select the correct lifting truck and attachments.
	3.2 Lift, carry, lower and set down the load in accordance with occupational health and safety legislation, the manufacturer's specifications and organizational procedures.
4. Monitor site conditions	4.1 Identify **hazards** and traffic flow and make appropriate adjustments when selecting the most efficient route.
	4.2 Assess site conditions to enable safe operation and ensure that no injury to persons or damage to property, equipment, loads or facilities occurs.
5. Monitor and maintain forklift performance	5.1 Monitor the performance and efficiency of vehicle operation during use.
	5.2 Report defective performance and malfunctions to relevant personnel.

RANGE STATEMENT

All range statements must be assessed:

1. **Warning systems:**

    - Instruments
    - Gauges
    - Alarms (auditory and visual)

2. **Attachments:**

    - Mounted carpet boom
    - Paper clamps
    - Telescopic extended jib

3. **Hazards:**

    - Dangerous or hazardous substances
    - Movement of equipment, goods and materials
    - Slippery operating surfaces
    - Faulty brakes
    - Workplace obstacles
    - Damaged loads and pallets
    - Personnel in work area

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are the organizational requirements and manufacturer's specifications relating to inspection, assessment and safety of forklifts.
2. What are warning systems and how they are checked.
3. How to check the condition of the forklift.
4. What are the attachments of the forklift and how they are attached and checked.
5. Why and how are the mirrors, seats and seatbelts checked to ensure safe operation by the driver.
6. Why and how are logbooks checked.
7. What is the appropriate documentation and how it is completed.
8. How to start, steer, manoeuvre, position and stop a forklift.
9. How to manage engine power to ensure efficiency and performance to minimize damage.
10. What are hazards and how they are identified and avoided or controlled.
11. What are defensive driving and hazard control techniques and how they are applied.
12. How to safely and accurately drive a forklift in reverse.
13. How to park, shut down and secure a forklift.
14. How to plan lifting tasks and select the correct lifting truck and attachments.
15. How to lift, carry, lower and set down a load.
16. How to identify traffic flow and make adjustments when selecting routes.
17. How to assess site conditions for safe operation.
18. How to monitor performance and efficiency of vehicle.
19. How to detect defective performance and malfunctions and how to report them.
20. Why and how are forklift records maintained.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on one occasion on both light and heavy forklifts.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U75802 Operate a reach stacker

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to operate a reach stacker to perform operations and to ensure that all specified safety requirements are met and that the vehicle is operating in compliance with the requirements of the workplace and relevant authorities.

ELEMENT	PERFORMANCE CRITERIA
To be competent you must achieve the following:	
1. Plan work for current working conditions	1.1 Continually assess and anticipate the traffic flow and work area conditions to allow safe operation and ensure no injury to personnel or damage to reach stacker, loads or facilities occurs.
	1.2 Take into account the **characteristics** of the load to ensure that the appropriate attachments are used to transport the load.
	1.3 Report occurrences in the work area that may affect the safety and efficiency of operations to **appropriate personnel**.
2. Use controls and operating systems	2.1 Check the reach stacker to ensure that the appropriate attachments are securely fitted.
	2.2 Check the gear and operational levers to ensure that they are in the neutral position prior to inserting the ignition key and starting the engine.
	2.3 Start the engine according to the manufacturer's guidelines to bring the engine to speed.
	2.4 Monitor the instruments and gauges during the start-up and operation to ensure that the reach stacker is in compliance with the manufacturer's specifications and organizational safety requirements.
	2.5 Manage the engine power for efficiency of equipment movement and economy of equipment operations.

	2.6 Operate the reach stacker within the manufacturer's specified torque range.
	2.7 Report faults or damage immediately to the **appropriate personnel**.
3. Locate load and identify load characteristics	3.1 Locate and confirm that the load is located according to instructions.
	3.2 Identify **hazardous goods** and take the relevant procedures into account when planning and conducting work.
	3.3 Take the **characteristics** of the load into account to ensure that the appropriate loading and unloading procedures are followed.
	3.4 Confirm that the load weight and dimensions are within the capacity of the reach stacker.
4. Move materials and loads	4.1 Manoeuvre and position the reach stacker using smooth, controlled movements.
	4.2 Confirm that the manoeuvres are within the limits of reach stacker and in line with the manufacturer's specifications.
	4.3 Move materials, ensuring no injury to personnel or damage to equipment and goods.
5. Monitor and operate controls	5.1 Monitor and operate the controls of the reach stacker in accordance with the manufacturer's operating instructions.
	5.2 Confirm understanding of the control systems and act upon them in accordance with statutory authority regulations, the manufacturer's guidelines and site operating procedures.
	5.3 Identify control faults and report them in accordance with the manufacturer's instructions and workplace guidelines.
6. Stop, park and secure reach stacker	6.1 Bring the reach stacker to a controlled halt according to the manufacturer's guidelines.

6.2 Secure the reach stacker on a flat, even surface, not close to doorways, aisles, access-ways or blind corners and in accordance with organizational procedures for the vehicle.

6.3 Park and secure the reach stacker without injury to personnel or damage to the reach stacker, loads or facilities in accordance with securing procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Characteristics:**

    - Shapes
    - Dimensions
    - Weight

2. **Appropriate personnel:**

    - Supervisory staff
    - Clerical staff

3. **Hazards:**

    - Dangerous or hazardous substances
    - Movement of equipment
    - Slippery operating surfaces
    - Faulty brakes
    - Workplace obstacles
    - Damaged loads and pallets
    - Personnel in the work area

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are the organizational safety procedures, manufacturer's guidelines and statutory authority regulations for operation of the reach stacker.
2. How traffic flow and work area conditions are assessed and anticipated.
3. What are the characteristics of loads and how they are identified.
4. How to prepare the reach stacker, what are the required attachments and how to fit them.
5. How and why are gear and operational levers checked.
6. How to start the engine and monitor instruments and gauges during start-up and operations.
7. How to manage engine power for efficiency of equipment and economy of equipment operations.
8. What is the manufacturer's specified torque range and how to operate the reach stacker within this range.
9. How and to whom should any faults and damage to the reach stacker be reported.
10. How to locate and identify loads.
11. What are loading and unloading plans and how they are followed.
12. What are hazardous goods, how they are identified and what are the relevant procedures to be followed.
13. What are the load weight and dimensions and how to verify that they are within the capacity of the reach stacker.
14. How to manoeuvre and position the reach stacker.
15. How to safely move materials.
16. What are the control systems.
17. How to monitor the controls of the reach stacker.
18. How to identify and report control faults.
19. How to safely bring the reach stacker to a controlled halt and park it.
20. How to safely secure the reach stacker.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U76002 Operate a straddle carrier

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to operate a straddle carrier to perform operations, to ensure that all specified safety requirements are met and that the vehicle is operating in accordance with the requirements of the workplace and relevant authorities.

ELEMENT	PERFORMANCE CRITERIA

To be competent you must achieve the following:

1. Plan work for current working conditions	1.1 Continually assess and anticipate the traffic flow and work area conditions to allow safe operation and ensure no injury to personnel or damage to the straddle carrier, loads or facilities occurs.
	1.2 Take into account the **characteristics** of the load to ensure that the appropriate **attachments** are used to transport the load.
	1.3 Report occurrences and conditions in the work area that may affect the safety and efficiency of operations to **appropriate personnel**.
2. Use controls and operating systems	2.1 Check the straddle carrier to ensure that the appropriate **attachments** are securely fitted.
	2.2 Check the gear and operational levers to ensure that they are in the neutral position prior to inserting the ignition key and starting the engine.
	2.3 Start the engine according to the manufacturer's guidelines to bring the engine to speed.
	2.4 Monitor the instruments and gauges during start-up and operations to ensure that the straddle carrier is in compliance with the manufacturer's specifications and organizational safety requirements.
	2.5 Manage the engine power for efficiency of equipment movement and economy of

	equipment operations.
	2.6 Operate the straddle carrier within the manufacturer's specified torque range.
	2.7 Report faults or damage immediately to the **appropriate personnel**.
3. Locate loads and identify load characteristics	3.1 Identify and locate the load according to instructions.
	3.2 Identify **hazardous goods** and take relevant procedures into account when conducting work.
	3.3 Take into account the **characteristics** of the load to ensure that the appropriate loading and unloading procedures are followed.
	3.4 Confirm that the load weight and dimensions are within the capacity of the straddle carrier.
4. Move materials and loads	4.1 Manoeuvre and position the straddle carrier using smooth, controlled movements.
	4.2 Confirm that the manoeuvres are within the limits of the straddle carrier and in line with the manufacturer's specifications.
	4.3 Move materials, ensuring no injury to personnel or damage to straddle carrier and goods.
5. Monitor and operate controls	5.1 Monitor and operate the straddle carrier controls in accordance with the manufacturer's operating instructions.
	5.2 Confirm understanding of the control systems and act upon them in accordance with statutory authority regulations, the manufacturer's guidelines and site operating procedures.
	5.3 Identify and report control faults in accordance with the manufacturer's instructions and workplace guidelines.
6. Stop, park and secure straddle carrier	6.1 Bring the straddle carrier to a controlled halt in accordance with the manufacturer's instructions .

6.2 Secure the straddle carrier on a flat, even surface, not close to doorways, aisles, access-ways or blind corners and in accordance with organizational procedures for the vehicle.

6.3 Park and secure the straddle carrier without injury to personnel or damage to the straddle carrier, loads or facilities in accordance with securing procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Characteristics:**

    - Shapes
    - Dimensions
    - Weights

2. **Attachments:**

    - Side locks
    - Speed loader

3. **Appropriate personnel:**

    - Supervisory staff
    - Clerical staff

4. **Hazardous goods:**

    - Dangerous or hazardous substances
    - Movement of equipment
    - Slippery operating surfaces
    - Faulty brakes
    - Workplace obstacles
    - Damaged loads and pallets
    - Personnel in the work area

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are the organizational safety procedures, manufacturer's guidelines and statutory authority regulations for operation of the straddle carrier.
2. How traffic flow and work area conditions are assessed and anticipated.
3. What are the characteristics of a load and how they are identified.
4. How to prepare the straddle carrier, what are the required attachments and how to fit them.
5. How and why gear and operational levers are checked.
6. How to start the engine and monitor instruments and gauges during start-up and operations.
7. How to manage engine power for efficiency of equipment and economy of equipment operations.
8. What is the manufacturer's specified torque range and how to operate the straddle carrier within this range.
9. How and to whom faults and damage to the straddle carrier should be reported.
10. How to locate and identify loads.
11. What are loading and unloading plans and how they are followed.
12. What are hazardous goods, how they are identified and what are the relevant procedures to be followed.
13. What are the load weight and dimensions and how to verify that they are within the capacity of the straddle carrier.
14. How to manoeuvre and position the straddle carrier.
15. How to safely move materials.
16. What are the control systems.
17. How to monitor the controls of the straddle carrier.
18. How to identify and report control faults.
19. How to safely bring the straddle carrier to a controlled halt and park it.
20. How to safely secure the straddle carrier.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U76102 Operate a crane

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to operate a crane to perform operations, to ensure that all specified safety requirements are met and that the vehicle is operating in accordance with the requirements of the workplace and relevant authorities.

ELEMENT	PERFORMANCE CRITERIA
To be competent you must achieve the following:	
1. Plan work for current working conditions	1.1 Assess and anticipate the traffic flow and work area conditions continually to allow safe operation and ensure no injury to personnel or damage to the crane, loads or facilities occurs.
	1.2 Take into account the **characteristics** of the load to ensure that the appropriate attachments are used to transport the load.
	1.3 Report occurrences in the work area that may affect the safety and efficiency of operations to **appropriate personnel**.
2. Use controls and operating systems	2.1 Check the crane to ensure that the appropriate attachments are securely fitted.
	2.2 Check the gear and operational levers to ensure that they are in the neutral position prior to inserting the ignition key and starting the engine.
	2.3 Start the engine according to the manufacturer's guidelines to bring the engine to speed.
	2.4 Monitor the instruments and gauges during start-up and operations to ensure that the crane is in compliance with the manufacturer's specifications and organizational safety requirements.
	2.5 Manage the engine power for efficiency of equipment movement and economy of equipment operations.

	2.6 Operate the crane within the manufacturer's specified torque range.
	2.7 Report faults or damage immediately to the appropriate personnel.
3. Locate load and identify load characteristics	3.1 Locate and identify the load according to instructions.
	3.2 Identify **hazards** and take relevant procedures into account when planning and conducting work.
	3.3 Take into account the **characteristics** of the load to ensure that the appropriate loading and unloading procedures are followed.
	3.4 Confirm that the load weight and dimensions are within the capacity of the crane.
	3.5 Follow the loading and unloading plans to ensure the safety of operations.
4. Move materials and loads	4.1 Manoeuvre and position the crane using smooth, controlled movements.
	4.2 Confirm that the manoeuvres are within the limits of the crane and in line with the manufacturer's specifications.
	4.3 Move materials, ensuring no injury to personnel or damage to equipment and goods.
5. Monitor and operate controls	5.1 Monitor and operate the crane controls in accordance with the manufacturer's operating instructions.
	5.2 Confirm understanding of the control systems and act upon them in accordance with statutory authority regulations, manufacturer's guidelines and site operating procedures.
	5.3 Identify and report control faults in accordance with the manufacturer's instructions and workplace guidelines.

6. Stop, park and secure a crane	6.1 Bring a crane to a controlled halt in accordance with the manufacturer's guidelines.
	6.2 Position a crane on a flat, even surface, not close to doorways, aisles, access-ways or blind corners and in accordance with the organizational procedures for the vehicle.
	6.3 Park and secure crane without injury to personnel or damage to the crane, loads or facilities in accordance with securing procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Characteristics:**

    - Shapes
    - Dimensions
    - Weight

2. **Appropriate personnel:**

    - Supervisory staff
    - Clerical staff

3. **Hazards:**

    - Dangerous or hazardous substances
    - Movement of equipment
    - Slippery operating surfaces
    - Faulty brakes
    - Workplace obstacles
    - Damaged loads and pallets
    - Personnel in the work area

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are the organisational safety procedures, manufacturer's guidelines and statutory authority regulations for operation of the crane.
2. How traffic flow and work area conditions are assessed and anticipated.
3. What are the characteristics of a load and how they are identified.
4. How to prepare the crane, what are the required attachments and how to fit them.
5. How and why gear and operational levers are checked.
6. How to start the engine and monitor instruments and gauges during start-up and operations.
7. How to manage engine power for efficiency of equipment and economy of equipment operations.
8. What is the manufacturer's specified torque range and how to operate the crane within this range.
9. How and to whom any faults and damage to the crane should be reported.
10. How to locate and identify loads.
11. What are loading and unloading plans and how they are followed.
12. What are hazardous goods, how they are identified and what are the relevant procedures to be followed.
13. What are the load weight and dimensions and how to verify that they are within the capacity of the crane.
14. How to manoeuvre and position the crane.
15. How to safely move materials.
16. What are the control systems.
17. How to monitor the controls of the crane.
18. How to identify and report control faults.
19. How to safely bring the crane to a controlled halt and park it.
20. How to safely secure the crane.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

U76202 Operate a tractor unit with trailer

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to operate a tractor unit with trailer to perform operations and to ensure that all specified safety requirements are met and that the vehicle is operating in accordance with the requirements of the workplace and relevant authorities.

ELEMENT	PERFORMANCE CRITERIA
To be competent you must achieve the following:	
1. Inspect and assess tractor unit	1.1 Check the condition of the tractor with the manufacturer's specifications and organizational requirements for safety.
	1.2 Check the gear to ensure that it is in the neutral position.
	1.3 Start the engine according to the manufacturer's guidelines.
	1.4 Check warning systems to ensure the tractor is operational according to the manufacturer's specifications.
	1.5 Report faults or damage to the appropriate authority.
2. Hitch trailer to tractor unit	2.1 Select the appropriate **trailer** according to work instructions.
	2.2 Select the appropriate **attachment** for the **trailer,** if applicable and check for compliance with the manufacturer's specifications and organizational requirements for safety.
	2.3 Safely secure the **attachment** to the tractor if applicable, according to the manufacturer's specifications.
	2.4 Check the condition of the **trailer** for compliance with the manufacturer's specifications and organizational requirements for safety.

	2.5 Safely reverse the tractor unit to align it with the **trailer** kingpin.
	2.6 Secure the **trailer** safely to the tractor unit or **attachment,** if applicable, according to the manufacturer's specifications.
	2.7 Check the **trailer** to ensure operational capability according to the manufacturer's specifications and organizational requirements.
	2.8 Raise or lower the **trailer** according to the manufacturer's specifications when required.
3. Drive tractor unit with trailer	3.1 Adjust the mirrors for safe operation by the driver.
	3.2 Identify **hazards** and take relevant operating procedures and safety requirements into account when planning and driving.
	3.3 Drive and manoeuvre the tractor unit using smooth, controlled movements.
	3.4 Monitor and operate the tractor unit controls in accordance with the manufacturer's operating instructions.
	3.5 Confirm understanding of the control systems and act upon them in accordance with the manufacturer's guidelines and site operating procedures.
4. Stop, park and secure tractor unit with trailer	4.1 Bring the tractor unit with the trailer to a controlled halt in accordance with the manufacturer's guidelines.
	4.2 Position the tractor unit with a trailer on a flat, even surface, not close to doorways, aisles, access-ways or blind corners and in accordance with the organizational procedures for vehicle.
	4.3 Park and secure the tractor unit with trailer without injury to personnel or damage to the tractor unit, loads or facilities in accordance with securing procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Characteristics:**

    - Mafi trailer
    - Standard

2. **Attachments:**

    - Gooseneck
    - Air lines
    - Electric line

3. **Hazards:**

    - Dangerous or hazardous substances
    - Movement of equipment
    - Slippery operating surfaces
    - Faulty brakes
    - Workplace obstacles
    - Damaged loads and pallets
    - Personnel in the work area
    - Damaged landing gears

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are the organization's safety procedures and manufacturer's specifications for operation of the tractor unit with trailer.
2. How to check the condition of the tractor unit and trailer.
3. What are the manufacturer's guidelines for starting the engine.
4. What are the warning systems and how they are checked to ensure they are operational.
5. How and to whom any faults and damage to the tractor unit or trailer should be reported.
6. How and why to adjust mirrors, seats and seatbelts for operation.
7. How to drive and manoeuvre the tractor unit with trailer, using smooth, controlled movements.
8. What are the limits of the tractor unit with trailer and how to keep the manoeuvres within these limits.
9. What are work instructions and how to interpret them.
10. How to select the appropriate trailer and attachments and check their condition for operational capability.
11. How to secure the trailer and attachments.
12. How to raise or lower trailer according to manufacturer's specifications.
13. What are hazards and how they are identified.
14. What are the control systems and how they are acted upon.
15. How to bring a tractor unit with trailer to a controlled halt.
16. How to park, positon and secure a tractor unit with trailer.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge **on more than one occasion.** This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is, the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

Appendix 2

Level 2 Glossary of Terms

Assessment methods

The methods which can be used to determine competence in performance and underpinning knowledge.

Assessors

The Assessor's role is to determine whether evidence presented by a candidate for assessment within the programme meets the required standard of competence in the relevant unit or element. The assessor needs to be competent to assess to national standards in the area under assessment.

Approved centre

Organization/centre approved by the TVET Council to offer full National Vocational Qualifications (NVQs).

Case studies

In situations where it is difficult for workplace assessment to take place, case studies can offer the candidate an opportunity to demonstrate potential competence.

A case study is a description of an actual or imaginary situation presented in some detail. The way the case study is presented will vary depending upon the qualification, but the most usual methods are written, video or audio taped.

The main advantage of a case study is the amount of evidence of underpinning knowledge it can generate and the specific nature of the evidence produced.

Competence

In the context of vocational qualifications, competence means the ability to carry out prescribed activities to nationally predetermined standards in an occupation. The definition embraces cognitive, practical and behavioural skills, underpinning knowledge and understanding and the ability to react appropriately in contingency situations.

Element

An element is a description of an action, behaviour or outcome which a person should be able to demonstrate.

Explanation of NVQ levels

NVQs cover five (5) levels of competence, from entry level (Level 1) through to senior management (Level 5).

Appendix 2

Level 2 Glossary of Terms

Level 1 – Entry level

Recognizes competence in a range of varied work activities performed in a variety of contexts. Most work activities are simple and routine. Collaboration with others through work groups or teams may often be a requirement. Substantial supervision is required especially during the early months evolving into more autonomy with time.

Level 2 – Skilled occupations

Recognizes competence in a broad range of diverse work activities performed in a variety of contexts. Some of these may be complex and non-routine and involve some responsibility and autonomy. Collaboration with others through work groups or teams and the guidance of others may be required.

Level 3 – Technician and supervisory occupations

Recognizes competence in a broad range of complex, technical or professional work activities performed in a wide variety of contexts, with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources are often a requirement. The individual is capable of self-directed application and exhibits problem solving, planning, designing and supervisory capabilities.

Level 4 – Technical specialist and middle management occupations

Recognizes competence involving the application of a range of fundamental principles and complex techniques across a wide and unpredictable variety of contexts. Requires very substantial personal autonomy and often significant responsibility for the work of others, the allocation of resources, as well as personal accountability for analysis, diagnosis, design, planning, execution and evaluation.

Level 5 – Chartered, professional and senior management occupations

Recognizes the ability to exercise personal professional responsibility for the design, development or improvement of a product, process, system or service. Recognizes technical and management competencies at the highest level and includes those who have occupied positions of the highest responsibility and made outstanding contributions to the promotion and practice of their occupation.

External Verifier

The External Verifier is trained and appointed by the TVET Council and is competent to approve and ensure an approved centre's quality of provision.

Internal Verifier

The Internal Verifier acts in a supporting role for Assessors to ensure the consistent quality of assessment and competence. He or she needs to be competent to assess to national standards in the area under assessment.

Appendix 2

Level 2 Glossary of Terms

NVQs

National Vocational Qualifications (NVQs) are work-based qualifications that assess an individual's competence in a work situation and certify that the individual can perform the work role to the standards expected in employment.

NVQs are based on national occupational standards of competence drawn up by standards-setting bodies known as Industry Lead Bodies. The standards describe the level and breadth of performance expected of persons working in the industry or sector which the NVQ covers.

NVQ Coordinator

The NVQ Coordinator is the contact person within each approved centre offering NVQs, who has overall responsibility for the operation and administration of the NVQ system.

Observation

Observation of candidates carrying out their job in the workplace is the assessment method recommended in the vast majority of units and elements. Observation of staff carrying out their duties is something that most supervisors and managers do every day.

Performance criteria

Performance criteria indicate the requirements for the successful achievement of an element. They are descriptions of what the Assessor would expect to see in competent performance.

Product of work

The product of work may be items produced during the normal course of work, such as reports, menus, promotional literature, training plans, etc., which can be used for evidentiary purposes.

Questioning

Questioning is one of the most appropriate ways to collect evidence to assess a candidate's underpinning knowledge and understanding.

Questioning can also be used to assess a candidate in those areas of work listed in the range which cannot be assessed by observation. Guidance on when this assessment method can be used is given in the assessment guidance of each individual element.

As an assessment method, questioning ensures that the Assessor has all of the evidence about a candidate's performance. It also allows the Assessor to clarify situations.

Appendix 2

Level 2 Glossary of Terms

Range statements

The range puts the element of competence into context. A range statement describes the range of situations to which an element and its performance criteria should be applied.

Range statements are prescriptive; therefore, each category must be assessed.

Role plays

Role plays are simulations where the candidates are asked to act out a situation in the way they consider 'real' people would behave. By using role-play situations to assess candidates, assessors are able to collect evidence and make a judgement about how the candidates are most likely to perform in a similar workplace situation. This may be necessary if the range specified includes a situation in which the candidates are unlikely to find themselves in the normal course of their work, or where the candidates need to develop competence before being judged competent, for example, in a disciplinary situation.

Simulations

Where possible, assessment should always be carried out by observing **natural performance** in the workplace. **Simulated performance**, however, can be used where specified to collect evidence about an aspect of candidates' work which occurs infrequently or is potentially hazardous; for example, dealing with fires.

By designing the simulated situation, briefing the candidates and observing their performance, the Assessor will be able to elicit evidence which will help him/her judge how candidates are **most likely** to perform in real life.

Supplementary evidence

Supplementary evidence can be used to confirm and support performance evidence. Types of supplementary evidence include witness testimonies, reports, journals or diaries, records of activities, personal statements and simulation. (See note in glossary.)

Underpinning knowledge

Underpinning knowledge indicates the knowledge that is **essential** for a candidate to possess in order to successfully achieve an element and prove total competence.

Units

A unit of competence describes one or more than one activity which forms a significant part of a candidate's work. Units are accredited separately but, in combination, can make up a vocational qualification. There are two categories of units:

Appendix 2

Level 2 Glossary of Terms

Mandatory units: These are core to a qualification and must be completed.

Optional units: Candidates must choose the required number of individual units, specified in the qualification structure, to achieve the qualification.

Work-based projects

Work-based projects are a useful way for the Assessor to collect evidence to support any decision made about a candidate's performance. They are particularly appropriate in determining the level of a candidate's underpinning knowledge and understanding where it may be insufficient to rely only on questioning or observation.

A project often involves the identification of a solution to a specific problem identified by the Assessor and/or the candidate (such as looking at ways to redress a recent drop in sales), or may be a structured programme of work built around a central situation or idea (such as the introduction of a new job rostering process).