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### SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

#### Maritime Operations

Registered by Organising Field 11, Services, publishes the following Qualification and Unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the Qualification and Unit standards. The Qualification and Unit standards can be accessed via the SAQA web site at [www.saga.org.za](http://www.saga.org.za). Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, **Hatfield Forum West, 1067 Arcadia Street, Hatfield, Pretoria.**

Comment on the Qualification and Unit standards should reach SAQA at the address ***below and no later than 13 November 2006.*** All correspondence should be marked **Standards Setting and Development – SGB for Maritime Operations** and addressed to

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## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## QUALIFICATION:

**National Certificate: Marine Pilotage**

SAQA QUAL ID	QUALIFICATION TITLE		
57714	National Certificate: Marine Pilotage		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Maritime Operations	11		
QUAL TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD	
National Certificate	Services	Transport, Operations and Logistics	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
Undefined	123	Level 5	Regular-Unit Stds Based

**PURPOSE AND RATIONALE OF THE QUALIFICATION**

## Purpose:

The qualifying learner will ensure the safe and efficient passage of vessels entering, sailing from and shifting within the port operation area. The competencies achieved through this qualification will be applied at all compulsory Pilotage ports in South Africa to international practice and Harbour regulations.

This qualification is aimed at learners that are in possession of a relevant undergraduate qualification and those with relevant experience as deck officers in deep sea. It will ensure that Marine Pilots are qualified and provide a professional service after the prescribed practical experience.

The learner assessed as competent against this qualification will be able to:

- > Communicate with all role-players to ensure optimal resource use to perform pilotage.
- > Apply marine pilotage knowledge to pilot a vessel or a tow into port.
- > Embark and disembark a vessel and perform pilotage or tow operation.
- > Apply skills, knowledge and attitudes of management to pilot a vessel or tow within port limits.

## Rationale:

This unit standards based qualification will address the need for education and training of Marine Pilots in South Africa as there is no recognised National qualification currently. It will ensure compliance with international standard practice and Harbour regulations. In the past, the nature of the profession did not allow, nor promote, access to this area of economic activity. This qualification will entrench open-access to a career as a Marine Pilot.

To date, Maritime Pilots have been trained at Maritime Pilot Institute, Rotterdam. Marine Pilots for the South African market have always been trained at this institution in the Netherlands. This qualification will provide the National Ports Authority (NPA) of South Africa, the custodian of Maritime Training, the opportunity to offer this learning intervention for the first time. This will ensure that the NPA meets its strategic objective to facilitate the training of Marine Pilots in South Africa.

The Marine Pilot's specialist function is to safely handle the movement of all vessels within the harbour. This makes them key to the supply chain of the country and will therefore contribute to the economy as well. It will also address the perception of not maintaining standards in the industry.

**RECOGNIZE PREVIOUS LEARNING?**

Y

**LEARNING ASSUMED TO BE IN PLACE**

It is compulsory for learners wishing to access this Qualification to be competent at:

- > Communication in English at NQF level 4 or equivalent.
- > Mathematics at NQF level 4 or equivalent.
- > Physical Science at NQF level 4 or equivalent.
- > Qualified Deck officer STCW 95 (Valid Class 3) or equivalent.

**Recognition of prior learning**

This Qualification and all the fundamental, core and elective Unit Standards associated with it, as described in the rules of combination, can be achieved by any learner through the recognition of prior learning, which includes learning outcomes achieved through formal, informal and non-formal learning and work experience. The exit-level outcomes and the related Unit Standards may also be achieved through the recognition of prior learning.

**Access to the qualification**

The learner should satisfy the competent pilotage authority's requirements that his/her medical fitness, particularly regarding eyesight, hearing and physical fitness meets the standards required for certification of masters and officers in charge of a navigational watch under the international Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW 1995) or as the relevant authorities consider appropriate.

**QUALIFICATION RULES**

The qualifying learner will achieve this Qualification by complying with the following rules of combination for the accumulation of credits:

**Learning Component**

- > All Fundamental Unit Standards: 21 credits.
  - > All Core Unit Standards: 92 credits.
  - > Elective Unit Standards: 10 credits.
- Total credits: 123.

**EXIT LEVEL OUTCOMES**

1. Communicate with all role-players to ensure optimal resource use to perform pilotage.
2. Apply marine pilotage knowledge to pilot a vessel or a tow into port.
3. Embark and disembark a vessel and perform pilotage or tow operation.
4. Apply skills, knowledge and attitudes of management to pilot a vessel or tow within port limits.

**ASSOCIATED ASSESSMENT CRITERIA**

1.
  - > Pre-pilotage information and data is selected, prioritised and communicated to all role-players throughout the pilotage operation in accordance with standing operational procedures.
  - > The pilotage operation and incidents/accidents are recorded and reported in terms of standing operating procedures and Corrective Action Report procedures.
  - > Principles and limitations of human performance are explained in relation to bridge team management.
  - > Principles of leadership and team dynamics is explained in relation to bridge team management.
  - > A stress management plan is designed to maximise optimal stress levels in order to reduce negative stress during pilotage operation.
2.
  - > International and National marine regulations, codes and rules are applied in relation to piloting a vessel or a tow into port.
  - > Hydrodynamic components that impact on piloting a vessel is countered to maintain vessel manoeuvrability and directional stability.
  - > Impact of longitudinal and transverse stability is demonstrated in terms of piloting a vessel or a tow into port.
  - > Port rules and MARPOL guidelines are applied in relation to marine environmental risk in the port.
3.
  - > Local port characteristics, conditions and procedures are explained in relation to the pilotage area and port rules.

- > Pilot boarding requirements are communicated and the vessel is positioned for embarkation and disembarkation in accordance with the International Maritime Pilots Association.
- > Pilot embarkation and disembarkation is demonstrated in relation to pilot boat and helicopter in terms of safety and security procedures.
- > A vessel is piloted and manoeuvred in approaches to the port, within the harbour and in confined waters according to the pilotage plan.
- > Emergency, contingency and pollution prevention plans and procedures (including reporting) are explained in relation to the specific port.
- > The piloted vessel is moored in terms of the mooring plan.
- > A tow is connected and piloted into a port through optimum use of harbour tugs in accordance with the pilotage plan.
- > Pilotage information and electronic data is acquired, interpreted and communicated in relation to VTS remote pilotage operation.

4.

- > Risk, time and information is managed to make decisions to achieve the pilotage plan.
- > Internal quality audit data and customer satisfaction levels are monitored to ensure continuous improvement of pilotage service.
- > Team building principles and processes are applied in leading and building a team to achieve the pilotage plan.
- > The budget needs of a business unit is analysed and a proposed budget is presented and justified according to organisational procedures.

#### Integrated assessment

Integrated assessment at the level of the Qualification provides an opportunity for learners to show that they are able to integrate concepts, ideas and actions across Unit Standards to achieve competence that is grounded and coherent in relation to the purpose of the Qualification. Integrated assessment should show how already demonstrated competence in individual areas can be linked and applied for the achievement of a holistic outcome as described in the exit level outcomes.

Integrated assessment must judge the quality of the observable performance, and also the quality of the thinking that lies behind it. Assessment tools must encourage learners to give an account of the thinking and decision-making that underpin their demonstrated performance. Some assessment practices will demand practical evidence while others may be more theoretical, depending on the type of outcomes to be assessed. The ratio between action and interpretation is not fixed, but varies according to the demands of the particular exit level outcome of the Qualification.

While the generic components of this Qualification at NQF Level 5 can be assessed through occupational contexts and activities relating to Marine Pilotage, care must be taken in both the learning programme and the assessment to ensure that these foundational skills are portable. The primary aim of this Qualification is to ensure that learners have a sound knowledge and skills base to prepare them for further learning, whatever career path they may choose. Learners must be able to transfer generic skills across a number of different contexts, and apply them within a number of learning areas.

A broad range of task-orientated and theoretical assessment tools may be used, with the distinction between practical knowledge and disciplinary knowledge maintained so that each takes its rightful place.

#### **INTERNATIONAL COMPARABILITY**

This National Certificate in Marine Pilotage was compared with qualifications for the same purpose from various countries. These countries include those considered world leaders in Marine Operations. This research undertook to identify similarities and differences of Marine Pilot training in the relevant countries. The extent of this comparison covered the duration and depth of study and practice required to achieve competence. The integrated purpose of the qualifications as well as the units of competence and assessment statements was examined.

This National Certificate in Marine Pilotage has been benchmarked against International best practice from the following countries:

- > Australia.
- > New Zealand.
- > United Kingdom.
- > Holland.
- > Namibia.
- > Turkey.

> United States of America.

In Australia there are numerous qualifications in the Maritime Operations learning pathway, ranging from Certificates to Advanced Diplomas. However, no qualifications were found to cater for the training of Marine Pilots. The following units of competency relate to the National Certificate in Marine Pilotage.

- > Control trim, stability and stress.
- > Maintain the stability of a vessel using basic stability information.
- > Manage stress and dynamic factors affecting a small vessel's stability.
- > Apply regulations when operating a small vessel.
- > Monitor compliance with legislative requirements and measures to ensure safety of life at sea.
- > Plan and navigate a short voyage within inshore limits.
- > Contribute to effective human relationships on board a vessel.
- > Assist in mooring and anchor handling activities.

Similarly, in New Zealand there are a number of qualifications in the Maritime Sub-field, however, no dedicated Marine Pilotage qualification was located. The following unit standards from the navigation and seamanship domain relate to the National Certificate in Marine Pilotage.

- > Determine the effects of weather and sea state on the safety of the passage.
- > Coordinate and monitor mooring, berthing and anchorage operations.
- > Implement collision avoidance procedures.
- > Maintain marine environmental regulatory compliance during operations.
- > Maintain navigational charge of ship.
- > Navigate in confined waters.
- > Plan ship's passage.
- > Maintain safe and efficient pilotage.
- > Manoeuvre the ship during specific operations.

In the United Kingdom private institutions offer National Vocational Qualifications in Marine Operations. The level 4 NVQ in Marine Vessel Operations reflects the following components (mandatory and optional) that relate to the National Certificate in Marine Pilotage:

- > Control Navigation and Ship-handling in All Conditions.
- > Support the Efficient Use of Resources.
- > Communicate Using Equipment and Visual Means (ROC).
- > Manoeuvre a Small Vessel in the Near Coastal Area.
- > Control the Mooring, Anchoring and the Security of the Vessel.
- > Plan and Execute the Voyage for a Near Coastal Area.
- > Manoeuvre a Small Vessel in the Near Coastal Area.

Pilotage training in Turkey is currently carried out using classical methods. Pilots are trained by experienced pilots. This system works quite well; however, this approach does not take advantage of the benefits of modern technical equipment, such as ship bridge simulators, that could improve the training efficiency.

In the United States of America, Boston for example, pilots are required to hold the highest professional maritime license endorsement (Oceans Unlimited Master) these mariners are the most highly skilled and trained mariners in the port.

As was the case in South Africa, in many African countries, the training of Marine Pilots is outsourced to Europe. In designing this qualification in pilotage, research was also done with our counter parts such as Namibia. They are considering recruiting Class III learners and modelling their training against South Africa.

The qualification found to be the most comparable to this one is the Training and Education of Marine Pilots in the Netherlands. Initially, the National Ports Authority of South Africa sent all trainee pilots on the Apprentice Pilot Training programme, Safeway Maritime, Rotterdam. The comparison is detailed in the table below:

These learning interventions are of the same duration in terms of both, theoretical and practical components. The duration is 52 weeks and 1200 notional hours of learning for the average learner. The three phases of the Dutch qualification closely resembles the content covered in many of the fundamental and core unit standards of the South African qualification.

The shaded area of the table below indicates the similarity between the compared qualifications for the training of Marine pilots. The elements of learning that are similar are also numbered in the table. This indicates that seven of the nine learning areas reveal a close similarity. The clear areas indicate a difference

in the training content.

> Rotterdam, Netherlands

Apprentice Pilot Training - 52 weeks

> Phase 1: 12 weeks

1. Maritime English (SMCP) General communication procedures.
  3. General regulations on maritime traffic.
  4. Tides and hydrographic conditions.
  5. Theoretical Manoeuvring.
  6. Practical manoeuvring.
  7. Radar Simulation.
- > Personal Safety training.  
> Buoyage Systems.

> Phase 2: 8 weeks

1. Communication skills.
  2. Bridge resource management.
  3. General regulations of interest to pilots.
  7. Radar Simulation.
- > Understanding the problem solving process.  
> Management of Dutch Pilotage organisation.

> Phase 3: 32 weeks

1. Regional communication procedures.
3. Regional Regulations of Maritime traffic and piloting.
4. Topographical knowledge Tidal conditions Practical visits
6. Practical navigation and manoeuvring in the designated area.

South Africa

National Certificate: Marine Pilotage: 120 credits.

Unit standards

1. Communicate with role-players to perform pilotage, 8 credits.
2. Manage bridge resources, 8 credits.
3. Apply local, national and international codes, regulation and statutory reporting, 8 credits.
4. Apply knowledge of Hydrodynamics in pilotage, 15 credits.
5. Understand the principles of ship stability in relation to piloting a vessel, 10 credits.
6.
  - > Pilot a tow into port, 10 credits.
  - > Embark and disembark a vessel by helicopter or using a pilot ladder, 24 credits.
  - > Pilot a vessel within port limits, 10 credits.
7. Conduct VTS remote pilotage, 10 credits.
  - > Provide support to manage marine environmental risk in the port, 5 credits.
  - > Demonstrate an understanding of stress in order to apply strategies to achieve optimal stress levels in personal and work situations, 5 credits.

#### **ARTICULATION OPTIONS**

The possibility exists for vertical articulation with this Qualification. The following proposed qualifications serve as examples of vertical articulation:

- > National Diploma: Transportation Management at NQF level 6 (NLRD ID 983).
- > National Diploma: Transport Economics at NQF level 6 (NLRD ID 919).

Examples of horizontal articulation with this Qualification:

- > National Certificate: Incident Management at NQF level 5 (NLRD ID 49398).
- > National Certificate: Transportation Management at NQF level 5 (NLRD ID 1187).

#### **MODERATION OPTIONS**

> Any institution offering learning that will enable achievement of this Qualification must be accredited by the relevant ETQA.

- > External Moderation of assessment will be overseen by the relevant ETQA at its discretion.
- > The accredited Training Provider will oversee internal Moderation of assessment.
- > Moderation should encompass achievement of competence described in both individual Unit Standards as well as the integrated competence described in the Qualification.
- > Moderation must also encompass achievement of the competencies described in the exit level outcomes described above.

#### **CRITERIA FOR THE REGISTRATION OF ASSESSORS**

- > Assessors must be registered as assessors with a relevant ETQA or an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- > Assessors must be in possession of a Pilotage Open Licence with three years experience or a related qualification in Maritime Operations at a minimum of NQF level 6.

#### **NOTES**

N/A

#### **UNIT STANDARDS**

*(Note: A blank space after this line means that the qualification is not based on Unit Standards.)*

	<b>UNIT STANDARD ID AND TITLE</b>	<b>LEVEL</b>	<b>CREDITS</b>	<b>STATUS</b>
Core	242837 Embark and disembark a vessel for the purposes of marine pilotage	Level 5	10	Draft - Prep for P Comment
Core	242838 Apply knowledge of hydrodynamics in pilotage	Level 5	15	Draft - Prep for P Comment
Core	242841 Pilot a vessel within port limits	Level 5	24	Draft - Prep for P Comment
Core	242843 Understand the principles of ship stability in relation to piloting a vessel	Level 5	10	Draft - Prep for P Comment
Core	242845 Provide support to manage marine environmental risk in the port	Level 5	5	Draft - Prep for P Comment
Core	242847 Conduct Vessel Traffic System remote pilotage	Level 5	10	Draft - Prep for P Comment
Core	242848 Manage bridge resources	Level 5	8	Draft - Prep for P Comment
Core	242849 Pilot a tow into port	Level 5	10	Draft - Prep for P Comment
Elective	242810 Manage Expenditure against a budget	Level 4	6	Draft - Prep for P Comment
Elective	13237 Optimise the quality assurance system	Level 5	6	Reregistered
Elective	15234 Apply efficient time management to the work of a department/division/section	Level 5	4	Reregistered
Elective	15237 Build teams to meet set goals and objectives	Level 5	3	Reregistered
Elective	115823 Gather and manage information for decision-making	Level 5	5	Registered
Elective	115833 Monitor, assess and manage risk	Level 5	6	Registered
Fundamental	15096 Demonstrate an understanding of stress in order to apply strategies to achieve optimal stress levels in personal and work situations	Level 5	5	Reregistered
Fundamental	242844 Communicate with role players to perform pilotage	Level 5	8	Draft - Prep for P Comment
Fundamental	242846 Apply regulations, codes and statutory reporting in marine pilotage	Level 5	8	Draft - Prep for P Comment



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

*UNIT STANDARD:*

1

**Embark and disembark a vessel for the purposes of marine pilotage**

<i>SAQA US ID</i>	<i>UNIT STANDARD TITLE</i>		
242837	Embark and disembark a vessel for the purposes of marine pilotage		
<i>SGB NAME</i>		<i>ORGANISING FIELD ID</i>	<i>PROVIDER NAME</i>
SGB Maritime Operations		11	
<i>UNIT STANDARD TYPE</i>		<i>ORGANISING FIELD DESCRIPTION</i>	<i>SUBFIELD DESCRIPTION</i>
Regular		Services	Transport, Operations and Logistics
<i>ABET BAND</i>	<i>CREDITS</i>	<i>NQF LEVEL</i>	<i>UNIT STANDARD TYPE</i>
Undefined	10	Level 5	Regular

**SPECIFIC OUTCOME 1**

Communicate pilot boarding requirements.

**SPECIFIC OUTCOME 2**

Position the vessel for pilot embarkation and disembarkation.

**SPECIFIC OUTCOME 3**

Understand the limitations of the pilot boat and helicopter.

**SPECIFIC OUTCOME 4**

Demonstrate an understanding of the collision regulations.

**SPECIFIC OUTCOME 5**

Adhere to safety and security procedures.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

2

## Apply knowledge of hydrodynamics in pilotage

SAQA US ID	UNIT STANDARD TITLE		
242838	Apply knowledge of hydrodynamics in pilotage		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Maritime Operations	11		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Services	Transport, Operations and Logistics	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	15	Level 5	Regular

**SPECIFIC OUTCOME 1**

Determine and maintain under-keel clearance for the passage.

**SPECIFIC OUTCOME 2**

Apply the effects of reduced under-keel clearance and shallow water on manoeuvring a vessel.

**SPECIFIC OUTCOME 3**

Counteract bank suction and channel effects.

**SPECIFIC OUTCOME 4**

Counter the effects of ship interaction on the directional stability of vessels manoeuvring in close proximity.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

3

## Pilot a vessel within port limits

SAQA US ID	UNIT STANDARD TITLE		
242841	Pilot a vessel within port limits		
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Maritime Operations		11	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Services	Transport, Operations and Logistics
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	24	Level 5	Regular

**SPECIFIC OUTCOME 1**

Demonstrate knowledge of local port characteristics and procedures.

**SPECIFIC OUTCOME 2**

Demonstrate piloting a vessel in approaches to the port including entering and departing.

**SPECIFIC OUTCOME 3**

Demonstrate piloting a vessel within the harbour and confined waters.

**SPECIFIC OUTCOME 4**

Demonstrate the ability to manoeuvre a vessel.

**SPECIFIC OUTCOME 5**

Demonstrate an understanding of emergency, contingency and pollution prevention plans and procedures for the port.

**SPECIFIC OUTCOME 6**

Moor a vessel.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

4

## Understand the principles of ship stability in relation to piloting a vessel

SAQA US ID	UNIT STANDARD TITLE		
242843	Understand the principles of ship stability in relation to piloting a vessel		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Maritime Operations	11		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Services	Transport, Operations and Logistics	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	10	Level 5	Regular

**SPECIFIC OUTCOME 1**

Understand the principles of longitudinal stability.

**SPECIFIC OUTCOME 2**

Apply knowledge of loadline marks.

**SPECIFIC OUTCOME 3**

Explain the principles of transverse stability.

**SPECIFIC OUTCOME 4**

Limit risks in the event of casualty.

**SPECIFIC OUTCOME 5**

Understand the effects of draft.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

5

## Communicate with role players to perform pilotage

SAQA US ID	UNIT STANDARD TITLE		
242844	Communicate with role players to perform pilotage		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Maritime Operations	11		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Services	Transport, Operations and Logistics	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

**SPECIFIC OUTCOME 1**

Select the most suitable means of communication with role players.

**SPECIFIC OUTCOME 2**

Select, prioritise and communicate pre-pilotage information.

**SPECIFIC OUTCOME 3**

Acquire, utilise and communicate data during pilotage.

**SPECIFIC OUTCOME 4**

Record and report on pilotage operation and incidents/accidents.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:**

6

**Provide support to manage marine environmental risk in the port**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
242845	Provide support to manage marine environmental risk in the port		
<b>SGB NAME</b>	<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>	
SGB Maritime Operations	11		
<b>UNIT STANDARD TYPE</b>	<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>	
Regular	Services	Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	5	Level 5	Regular

**SPECIFIC OUTCOME 1**

Report on foreign objects in port waters and quay side.

**SPECIFIC OUTCOME 2**

Report on foreign matter in port waters.

**SPECIFIC OUTCOME 3**

Understand ballast water and port waste reception facilities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

7

Apply regulations, codes and statutory reporting in marine pilotage

SAQA US ID	UNIT STANDARD TITLE		
242846	Apply regulations, codes and statutory reporting in marine pilotage		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Maritime Operations	11		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Services	Transport, Operations and Logistics	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

**SPECIFIC OUTCOME 1**

Understand the National Ports Act.

**SPECIFIC OUTCOME 2**

Apply port rules.

**SPECIFIC OUTCOME 3**

Apply the pilot's code of practice.

**SPECIFIC OUTCOME 4**

Understand SAMSA requirements pertaining to pilotage.

**SPECIFIC OUTCOME 5**

Explain the MARPOL requirements in terms of the port and approaches.

**SPECIFIC OUTCOME 6**

Apply the International Ship and Port Facility Security Code (ISPS).



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

8

## Conduct Vessel Traffic System remote pilotage

SAQA US ID	UNIT STANDARD TITLE		
242847	Conduct Vessel Traffic System remote pilotage		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Maritime Operations	11		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Services	Transport, Operations and Logistics	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	10	Level 5	Regular

**SPECIFIC OUTCOME 1**

Acquire and interpret electronic data.

**SPECIFIC OUTCOME 2**

Demonstrate knowledge of local conditions and procedures.

**SPECIFIC OUTCOME 3**

Communicate acquired data to piloted vessel.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

9

## Manage bridge resources

SAQA US ID	UNIT STANDARD TITLE		
242848	Manage bridge resources		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Maritime Operations	11		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Services	Transport, Operations and Logistics	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

**SPECIFIC OUTCOME 1**

Explain bridge situational awareness.

**SPECIFIC OUTCOME 2**

Explain bridge team communication.

**SPECIFIC OUTCOME 3**

Apply the principles of team dynamics.

**SPECIFIC OUTCOME 4**

Explain the principles of leadership.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

10

## Pilot a tow into port

SAQA US ID	UNIT STANDARD TITLE		
242849	Pilot a tow into port		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Maritime Operations	11		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Services	Transport, Operations and Logistics	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	10	Level 5	Regular

**SPECIFIC OUTCOME 1**

Connect a tow.

**SPECIFIC OUTCOME 2**

Conduct a tow into the port.