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**GOVERNMENT NOTICES**

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**SOUTH AFRICAN QUALIFICATIONS AUTHORITY**

No. 410

17 April 2009

**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

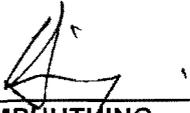
**Rail and Pipeline Operations**

registered by Organising Field 11 – Services, publishes the following Qualifications and Unit Standards for public comment.

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

Comment on the Qualifications and Unit Standards should reach SAQA at the address below and **no later than 18May 2009**. All correspondence should be marked **Standards Setting – SGB for Rail and Pipeline Operations** and addressed to

<p>The Director: Standards Setting and Development SAQA <i>Attention: Mr. E. Brown</i> Postnet Suite 248 Private Bag X06 Waterkloof 0145 or faxed to 012 – 431-5144 e-mail: <a href="mailto:ebrown@saqa.org.za">ebrown@saqa.org.za</a></p>
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D. MPHUTHING  
ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**QUALIFICATION:****National Certificate: Rail Operations (Functional Yard Operations)**

<b>SAQA QUAL ID</b>	<b>QUALIFICATION TITLE</b>		
66709	National Certificate: Rail Operations (Functional Yard Operations)		
<b>ORIGINATOR</b>			<b>PROVIDER</b>
SGB Rail and Pipeline Operations			
<b>QUALIFICATION TYPE</b>	<b>FIELD</b>	<b>SUBFIELD</b>	
National Certificate	11 - Services	Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>MINIMUM CREDITS</b>	<b>NQF LEVEL</b>	<b>QUAL CLASS</b>
Undefined	121	Level 3	Regular-Unit Stds Based

**This qualification replaces:**

Qual ID	Qualification Title	NQF Level	Min Credits	Replacement Status
23893	National Certificate: Rail Operations (Functional Yard Operations)	Level 3	120	Will occur as soon as 66709 is registered

**PURPOSE AND RATIONALE OF THE QUALIFICATION**

Purpose:

A learner qualifying in this qualification will be able to execute train control functions to ensure the safe and timeous movement of rail-bound vehicles from one point to another under planned and controlled conditions.

A learner who has achieved this qualification will have extensive theoretical and practical knowledge and skills of all the functions in a marshalling yard and will manage the functional duties as required.

The qualifying learner will be capable of:

- Preparing and despatching trains.
- Using equipment and procedures to provide on-track protection.
- Applying organisational standards and procedures in executing rail yard functions.

Rationale:

A safe and efficient rail transport system provides a key service of the transport sector of an economy. This qualification is intended for new entrants as well as existing personnel to gain formal recognition for learning in rail operations (yard personnel). It will serve to equip qualifying learners with the ability to perform functions related to a marshalling yard environment of rail operations.

This unit standards-based qualification was generated to provide an opportunity for entry into the rail operation industry at NQF Level 3, a foundation for further learning at NQF Level 4 as well as for further development from NQF Level 2.

This will allow persons currently in, or aspiring to enter the rail operations environment (Yard Personnel) and others to obtain an integrated practical and theoretical grounding in the

operation of a marshalling yard and all the functions thereof, which includes utilising, planning and controlling of movement for shunting purposes.

This will ensure a portable, nationally recognised qualification that will:

- Improve the quality of safety in the work environment.
- Provide a better service to clients.
- Lead to transformation in economic growth and social development.
- Better co-ordination between various functions within the yards, Joint Operating Office and open line working.

The aim of this qualification is to create a life-long learning environment in which the individual can build on a personal career in the Rail Operations environment. The various skills programmes that exist will allow learners to progress to a national qualification in functional yard operations.

#### **RECOGNIZE PREVIOUS LEARNING?**

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#### **LEARNING ASSUMED IN PLACE**

It is assumed that a learner will be competent in:

- Communication at NQF Level 2
- Mathematical Literacy at NQF Level 2.

Recognition of Prior Learning:

This Qualification and the entire fundamental, core and elective Unit Standards associated with it 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. Learner and assessor will jointly decide on methods to determine prior learning and competence in the knowledge, skills, values and attitudes implicit in the qualification and the associated unit standards.

This Recognition of Prior Learning may allow for:

- Gaining of credits for unit standards in this qualification.
- Obtaining this qualification in whole.

All Recognition of Prior Learning is subject to quality assurance by the relevant ETQA or an ETQA that has a Memorandum of Understanding with the relevant ETQA.

Access to the Qualification:

- There is open access to this Qualification.

#### **QUALIFICATION RULES**

The Qualification consists of a Fundamental, a Core and an Elective Component.

To be awarded the Qualification learners are required to obtain a minimum of 121 credits as detailed below.

Fundamental component

The Fundamental Component consists of Unit Standards in:

- Mathematical Literacy at NQF Level 3 to the value of 16 credits.
- Communication at NQF Level 3 in a First South African Language to the value of 20 credits.

All Unit Standards in the Fundamental Component are compulsory.

Core component:

- The Core Component consists of Unit Standards to the value of 54 credits all of which are compulsory.

Elective component:

- The Elective Component consists of individual unit standards from which the learner must choose unit standards totalling a minimum of 31 credits.

#### **EXIT LEVEL OUTCOMES**

1. Prepare and dispatch trains for safe movement on rail.
2. Execute protection procedures to ensure safe movement on rail.
3. Conduct rail yard functions.

#### **ASSOCIATED ASSESSMENT CRITERIA**

Assessment criteria for Exit Level Outcome 1:

- 1.1. A train profile is formulated according to the nature of rolling stock and destination.
  - 1.2. Shunting movement of rolling stock is controlled in a specific environment according to instructions, POSMOR and train working rules.
  - 1.3. Rail vehicles are inspected for road worthiness and compilation is inspected and rectified according to organisational standards and procedures.
  - 1.4. Despatching procedures, are executed according to organisational standards and procedures.
- Range: Procedures include performing brake test and administration.

Assessment Criteria for Exit Level Outcome 2:

- 2.1. Radio communication skills are demonstrated during train control and protection procedures in accordance with protocols and organisational standards and procedures.
- 2.3. A high-voltage earthing switch is operated according to manufacturer specifications and instructions.
- 2.3. Procedures for the introduction, maintenance and discontinuation of on-track protection are executed in applicable area of operation according to train working rules.

Assessment Criteria for Exit Level Outcome 3:

- 3.1. Organisational requirements for various rail yard functions are described in terms of methods to achieve acceptable results.
- 3.2. Consequences of not adhering to organisational requirements are described in terms of the impact on the organisation and safety.
- 3.3. Rail yard functions are conducted in accordance with organisational requirements.

Integrated Assessment:

Integrated assessment at the level of the qualification provides an opportunity for learners to show that they are able to integrate concepts, principles and practice 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 outcomes 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 knowledge 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 3 can be assessed through occupational contexts and activities relating to Train Operations, 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 general foundation to prepare them for further learning towards a specialised role in their chosen career path. 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**

- International and National benchmarking was done throughout the standard writing process.
- The UK courseware received, was not applicable to the South African environment and the competence profiles do not match the related profiles in South Africa.
- The yard operations, as well as the roles within the South African context, differ totally in comparison with that in the UK rail environment.
- The competency descriptions/profiles also vary within Spoornet, Metrorail, OREX, Coallink and other private rail-related companies, but the project team compiled standards that will cover the whole spectrum within the rail environment in South Africa.
- RAIL TRANSPORTATION WORKERS (USA) advertise various jobs for the USA rail market, but if it is compared with the South African market and competency profiles, then it does not match any competencies at all.

#### **ARTICULATION OPTIONS**

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

- ID 66669: Further Education and Training Certificate: Rail Operations: Train Control, NQF Level 4.
- ID 61670: Further Education and Training Certificate: Railway Construction and Maintenance, NQF Level 4.
- ID 49067: Further Education and Training Certificate: Railway Signalling: Fault-finding and Repair of Equipment, NQF Level 4.

Examples of horizontal articulation with this Qualification:

- ID 49236: National Certificate: Rail Transport Passenger Services, NQF Level 3.
- ID 49066: National Certificate: Railway Signalling: Installation and Scheduled Maintenance of Equipment, NQF Level 3.
- ID 48437: National Certificate: Road Transport, NQF Level 3.

#### **MODERATION OPTIONS**

- Any institution offering learning that will enable achievement of this qualification and the associated unit standards 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.
- Internal and external moderation should encompass achievement of competence described in the exit level outcomes of the qualification as well as the integrated competence described in the purpose of the qualification.

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

N/A

#### **NOTES**

This qualification replaces qualification 23893, "National Certificate: Rail Operations (Functional Yard Operations)", Level 3, 120 credits.

#### **UNIT STANDARDS**

	<b>ID</b>	<b>UNIT STANDARD TITLE</b>	<b>LEVEL</b>	<b>CREDITS</b>
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	Level 3	5
Fundamental	9010	Demonstrate an understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations	Level 3	2
Fundamental	9013	Describe, apply, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 3	4
Fundamental	119457	Interpret and use information from texts	Level 3	5
Fundamental	9012	Investigate life and work related problems using data and probabilities	Level 3	5
Fundamental	119467	Use language and communication in occupational learning programmes	Level 3	5
Fundamental	7456	Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Level 3	5
Fundamental	119465	Write/present/sign texts for a range of communicative contexts	Level 3	5
Core	264375	Adhere to disciplinary code and grievance procedures	Level 3	3
Core	260957	Compile a train	Level 3	12
Core	262446	Despatch a train	Level 3	5
Core	262449	Devise strategies for the maintenance of a healthy lifestyle	Level 3	4
Core	260918	Operate a radio transceiver	Level 3	3
Core	262445	Provide on-track protection	Level 3	5
Core	264338	Shunt rail vehicles	Level 3	18
Core	260919	Operate near and underneath high-voltage equipment	Level 4	4
Elective	264384	Execute train movement procedures	Level 3	6
Elective	264417	Execute train operating contingency plans	Level 3	2
Elective	264399	Utilise Van Schoor method of train control for safe movement on rail	Level 3	5
Elective	262448	Utilise fixed and temporary trackside indicators for rail movement	Level 3	3
Elective	264396	Utilise radio order system of train control	Level 3	5
Elective	264378	Utilise semaphore signals for rail movement on double lines	Level 3	4

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Elective	264381	Utilise semaphore signals for rail movement on single lines	Level 3	6
Elective	264401	Utilise telegraph order system for safe movement on rail	Level 3	5
Elective	264394	Utilise the wooden train staff system of train control for safe movement on rail	Level 3	3
Elective	260920	Explain the topographical concepts of a trajectory within the rail environment	Level 4	10
Elective	116594	Function in a team	Level 4	4
Elective	264397	Monitor railway stock and related equipment	Level 4	10
Elective	264372	Utilise colour-light signalling for rail movement	Level 4	18
Elective	264418	Utilise pilot working for safe movement on rail	Level 4	4
Elective	264294	Utilise track warrant system of train control	Level 4	5

**LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION**

**None**



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Utilise track warrant system of train control*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264294	Utilise track warrant system of train control		
<b>ORIGINATOR</b>			<b>PROVIDER</b>
SGB Rail and Pipeline Operations			
<b>FIELD</b>	<b>SUBFIELD</b>		
11 - Services	Transport, Operations and Logistics		
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	5

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14671	Utilise track warrant system of train control for safe movement on rail	Level 3	5	Will occur as soon as 264294 is registered

**SPECIFIC OUTCOME 1**

Demonstrate an elementary understanding of the Track Warrant system.

**SPECIFIC OUTCOME 2**

Communicate Track Warrant information.

**SPECIFIC OUTCOME 3**

Adhere to the en-route procedures.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:****Shunt rail vehicles**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264338	Shunt rail vehicles		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	18

**This unit standard replaces:**

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14638	Shunt rail vehicles	Level 2	18	Will occur as soon as 264338 is registered

**SPECIFIC OUTCOME 1**

Describe rail yard layout.

**SPECIFIC OUTCOME 2**

Couple and uncouple rail vehicles.

**SPECIFIC OUTCOME 3**

Control shunt movement of rolling stock.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Core	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:***Utilise colour-light signalling for rail movement*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264372	Utilise colour-light signalling for rail movement		
<b>ORIGINATOR</b>			<b>PROVIDER</b>
SGB Rail and Pipeline Operations			
<b>FIELD</b>			<b>SUBFIELD</b>
11 - Services			Transport, Operations and Logistics
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	18

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14611	Utilise colour-light signalling for rail movement	Level 4	18	Will occur as soon as 264372 is registered

**SPECIFIC OUTCOME 1**

Describe colour-light signals.

**SPECIFIC OUTCOME 2**

Describe the application of the different colour-light signals.

**SPECIFIC OUTCOME 3**

Adhere to colour-light signals.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:*****Adhere to disciplinary code and grievance procedures***

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264375	Adhere to disciplinary code and grievance procedures		
<b>ORIGINATOR</b>	<b>PROVIDER</b>		
SGB Rail and Pipeline Operations			
<b>FIELD</b>	<b>SUBFIELD</b>		
11 - Services	Transport, Operations and Logistics		
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	3

***This unit standard replaces:***

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14633	Adhere to disciplinary code	Level 3	1	Will occur as soon as 264375 is registered
14636	Follow grievance procedure	Level 3	2	Will occur as soon as 264375 is registered

**SPECIFIC OUTCOME 1**

Define the nature of a disciplinary code.

**SPECIFIC OUTCOME 2**

Explain disciplinary procedures.

**SPECIFIC OUTCOME 3**

Describe the nature of grievance procedures.

**SPECIFIC OUTCOME 4**

Explain grievance procedures.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Core	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Utilise semaphore signals for rail movement on double lines*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264378	Utilise semaphore signals for rail movement on double lines		
<b>ORIGINATOR</b>	<b>PROVIDER</b>		
SGB Rail and Pipeline Operations			
<b>FIELD</b>	<b>SUBFIELD</b>		
11 - Services	Transport, Operations and Logistics		
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	4

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14594	Utilise semaphore signals/indicators for rail movement on double lines	Level 3	4	Will occur as soon as 264378 is registered

**SPECIFIC OUTCOME 1**

Explain the use of semaphore signals on double lines.

**SPECIFIC OUTCOME 2**

Respond to the position of semaphore signals on double lines.

**SPECIFIC OUTCOME 3**

Explain procedures to be used during sub-standard conditions.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:****Utilise semaphore signals for rail movement on single lines**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264381	Utilise semaphore signals for rail movement on single lines		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	6

**This unit standard replaces:**

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14607	Utilise semaphore signals/indicators for rail movement on single lines	Level 3	8	Will occur as soon as 264381 is registered

**SPECIFIC OUTCOME 1**

Explain the use of semaphore signals on single lines.

**SPECIFIC OUTCOME 2**

Respond to the position of semaphore signals on single lines.

**SPECIFIC OUTCOME 3**

Explain procedures to be used during sub-standard conditions.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Execute train movement procedures*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264384	Execute train movement procedures		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	6

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14618	Execute departure/arrival/en route travelling procedures - train personnel	Level 3	3	Will occur as soon as 264384 is registered
14621	Perform crossing of trains	Level 3	3	Will occur as soon as 264384 is registered

**SPECIFIC OUTCOME 1**

Perform procedures and inspections before departure of trains from stations/yards.

**SPECIFIC OUTCOME 2**

Perform en route safety procedures.

**SPECIFIC OUTCOME 3**

Perform duties at railway line crossing places.

**SPECIFIC OUTCOME 4**

Perform arrival procedures at destinations.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:***Utilise the wooden train staff system of train control for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264394	Utilise the wooden train staff system of train control for safe movement on rail		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	3

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14670	Utilise wooden train staff system of train control for safe movement on rail	Level 3	3	Will occur as soon as 264394 is registered

**SPECIFIC OUTCOME 1**

Explain the use of the wooden train staff system of train control.

**SPECIFIC OUTCOME 2**

Adhere to the specific instructions on the wooden train staff system.

**SPECIFIC OUTCOME 3**

Comply with the pre-determined train arrangement at unattended places.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:***Utilise radio order system of train control*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264396	Utilise radio order system of train control		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	5

**This unit standard replaces:**

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14668	Utilise the radio train order system of train control for safe movement on rail	Level 3	3	Will occur as soon as 264396 is registered

**SPECIFIC OUTCOME 1**

Demonstrate an elementary understanding of the radio order system.

**SPECIFIC OUTCOME 2**

Communicate radio train order information.

**SPECIFIC OUTCOME 3**

Adhere to the en-route procedures.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:****Monitor railway stock and related equipment**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264397	Monitor railway stock and related equipment		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	10

**This unit standard replaces:**

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14626	Record of truck and locomotive movements (SPRINT) Spoornet information network	Level 4	10	Will occur as soon as 264397 is registered

**SPECIFIC OUTCOME 1**

Describe the rolling stock information management system.

**SPECIFIC OUTCOME 2**

Record information regarding movement of rolling stock on an information system.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Utilise Van Schoor method of train control for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264399	Utilise Van Schoor method of train control for safe movement on rail		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	5

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14637	Utilise Van Schoor method of train control for safe movement on rail	Level 3	5	Will occur as soon as 264399 is registered

**SPECIFIC OUTCOME 1**

Explain the use of the Van Schoor method of train control.

**SPECIFIC OUTCOME 2**

Adhere to the specific instructions on the Van Schoor token and warning advice.

**SPECIFIC OUTCOME 3**

Comply with pre-determined train arrangements at unattended places.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Utilise telegraph order system for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264401	Utilise telegraph order system for safe movement on rail		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	5

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14622	Utilise telegraph order system for safe movement on rail	Level 3	5	Will occur as soon as 264401 is registered

**SPECIFIC OUTCOME 1**

Explain the use of the telegraph order system.

**SPECIFIC OUTCOME 2**

Adhere to the specific instructions on the telegraph order/token.

**SPECIFIC OUTCOME 3**

Comply with the pre-arranged crossing arrangement(s) at interloop(s).

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Execute train operating contingency plans*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264417	Execute train operating contingency plans		
<b>ORIGINATOR</b>			<b>PROVIDER</b>
SGB Rail and Pipeline Operations			
<b>FIELD</b>	<b>SUBFIELD</b>		
11 - Services	Transport, Operations and Logistics		
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 3	2

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14655	Execute train operating contingency plan	Level 3	2	Will occur as soon as 264417 is registered

**SPECIFIC OUTCOME 1**

Explain the company-specific contingency plan.

**SPECIFIC OUTCOME 2**

Explain the responsibilities of the various role-players.

**SPECIFIC OUTCOME 3**

Execute and terminate the contingency plan.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:***Utilise pilot working for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264418	Utilise pilot working for safe movement on rail		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	4

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14608	Utilise pilot working of train control for safe movement on rail	Level 3	2	Will occur as soon as 264418 is registered

**SPECIFIC OUTCOME 1**

Introduce pilot working.

**SPECIFIC OUTCOME 2**

Implement pilot working.

**SPECIFIC OUTCOME 3**

Terminate pilot working.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66709	National Certificate: Rail Operations (Functional Yard Operations)	Level 3



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**QUALIFICATION:**

**Further Education and Training Certificate: Rail Operations (Train Control)**

SAQA QUAL ID	QUALIFICATION TITLE		
66669	Further Education and Training Certificate: Rail Operations (Train Control)		
ORIGINATOR		PROVIDER	
SGB Rail and Pipeline Operations			
QUALIFICATION TYPE	FIELD	SUBFIELD	
Further Ed and Training Cert	11 - Services	Transport, Operations and Logistics	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	120	Level 4	Regular-Unit Stds Based

**This qualification replaces:**

Qual ID	Qualification Title	NQF Level	Min Credits	Replacement Status
24498	National Certificate: Rail Operations (Train Control)	Level 4	126	Will occur as soon as 66669 is registered

**PURPOSE AND RATIONALE OF THE QUALIFICATION**

Purpose:

A learner qualifying in this qualification will be able to manage and plan train control for the safe and timeous movement of rail-bound vehicles from one point to another under planned and controlled conditions.

A learner who has achieved this qualification will have extensive theoretical and practical knowledge and skills of all systems of train control as required. This qualification will also form the platform to proceed to Transport Management and Transport Logistics Management qualifications.

Qualifying learners will be capable of:

- Coordinating the maintenance of a rail track.
- Administering train control methods for safe movement on rail.
- Applying suitable train control procedures during degraded mode.

Rationale:

A safe and efficient rail transport system provides a key service for the transport sector of an economy. This qualification is intended for new entrants as well as existing personnel to gain formal recognition for learning in rail operations (yard personnel and train control). It will serve to equip qualifying learners with the ability to perform functions related to administering train control methods and systems for the safe movement on rail.

This unit standards-based qualification was generated to provide an opportunity for entry into the rail operations industry at NQF Level 4, a foundation for further learning at NQF level 5 as well as for further development from NQF Level 3.

The aim of this qualification is to create a life-long learning environment in which the individual can build on a personal career in the Rail transportation sector. The Functional Yard Operations qualification and various skills programmes that exist will allow learners to progress to a national qualification in Train Control.

**RECOGNIZE PREVIOUS LEARNING?**

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**LEARNING ASSUMED IN PLACE**

It is assumed that the learner attempting this qualification is competent in:

- Communication at NQF Level 3.
- Mathematical Literacy at NQF Level 3.

Recognition of Prior Learning:

This Qualification and all fundamental, core and elective Unit Standards associated with it 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. Learner and assessor will jointly decide on methods to determine prior learning and competence in the knowledge, skills, values and attitudes implicit in the qualification and the associated unit standards.

This Recognition of Prior Learning may allow for:

- Gaining of credits for unit standards in this qualification.
- Obtaining this qualification in whole.

All Recognition of Prior Learning is subject to quality assurance by the relevant ETQA or an ETQA that has a Memorandum of Understanding with the relevant ETQA.

Access to the Qualification:

- There is open access to this Qualification.

**QUALIFICATION RULES**

The Qualification consists of a Fundamental, a Core and an Elective Component.

To be awarded the Qualification learners are required to obtain a minimum of 120 credits as detailed below.

Fundamental component:

The Fundamental Component consists of Unit Standards in:

- Mathematical Literacy at Level 4 to the value of 16 credits.
- Communication at Level 4 in a First South African Language to the value of 20 credits.
- Communication in a Second South African Language at Level 3 to the value of 20 credits.

It is compulsory therefore for learners to do Communication in two different South African languages, one at Level 4 and the other at Level 3.

All Unit Standards in the Fundamental Component are compulsory.

Core component:

- The Core Component consists of Unit Standards to the value of 50 credits all of which are compulsory.

Elective component:

- The Elective Component consists of individual unit standards from which the learner must choose unit standards totalling a minimum of 14 credits.

#### **EXIT LEVEL OUTCOMES**

1. Co-ordinate the use of a Heavy Tamping Machine for rail track maintenance.
2. Administer train control methods for safe movement on rail.
3. Apply suitable train control procedures during degraded mode.

#### **ASSOCIATED ASSESSMENT CRITERIA**

Assessment Criteria for Exit Level Outcome 1:

- 1.1. The Heavy Tamping Machine is despatched and protected in accordance with organisational standards and procedures.
- 1.2. Appropriate train control systems are applied during the working of the Tamping Machine according to organisational standards and procedures.
- 1.3. The despatching procedures of trains during the working of the Tamping Machine on the relevant train control system are applied according to organizational standards and procedures.

Assessment Criteria for Exit Level Outcome 2:

- 2.1. Rail movements are designed and implemented according to movement information, operational requirements and calculated running times.
- 2.2. Telegraph orders and warning advices are issued according to information on exchanged messages and train crossings arrangements diagrams.
- 2.3. Colour light signals and points are operated from a console or panel and reaction is ensured to be in accordance with organisational requirements.
- 2.4. Pilot working of train control is planned, implemented and terminated in accordance with train working rules.
- 2.5. Train movement is recorded and communicated according to train working rules.

Assessment Criteria for Exit Level Outcome 3:

- 3.1. Planned and unplanned interruptions are explained in terms of their characteristics and impact on the execution of the train service.
- 3.2. Train control procedures are implemented during degraded mode in accordance with train working rules for relevant systems.
- 3.3. Reporting protocol to communicate degraded mode is adhered to in terms of the organisational structure.

Integrated Assessment:

Integrated assessment at the level of the qualification provides an opportunity for learners to show that they are able to integrate concepts, principles and practice 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 outcomes 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 knowledge 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 3 can be assessed through occupational contexts and activities relating to Train Operations, 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 general foundation to prepare them for further learning towards a specialised role in their chosen career path. 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 being maintained so that each takes its rightful place.

#### **INTERNATIONAL COMPARABILITY**

International and National benchmarking was done throughout the standard writing process.

The UK courseware received, was not applicable to the South African environment and the competence profiles do not match the related profiles in South Africa.

The yard operations, as well as the roles within the South African context, differ totally in comparison with that in the UK rail environment.

The competency descriptions/profiles also vary within Spoornet, Metrorail, OREX, Coallink and other private rail-related companies, but the project team compiled standards that will cover the whole spectrum within the rail environment in South Africa.

Rail Transportation Workers (USA) advertise various jobs for the USA rail market, but if it is compared with the South African market and competency profiles, then it does not match any competencies at all.

#### **ARTICULATION OPTIONS**

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

- ID 63529: National Certificate: Railway Signaling Technology, NQF Level 5.
- ID 57407: National Diploma: Train Driving (Mainline Operations), NQF Level 5.
- ID: 61489: National Certificate: Transport Operations, NQF Level 5.

Examples of horizontal articulation with this Qualification:

- ID 24498: Further Education and Training Certificate: Rail Operations: Train Control, NQF Level 4.
- ID 61670: Further Education and Training Certificate: Railway Construction and Maintenance, NQF Level 4.
- ID 49067: Further Education and Training Certificate: Railway Signalling: Fault-finding and Repair of Equipment, NQF Level 4.

#### **MODERATION OPTIONS**

- Any institution offering learning that will enable achievement of this qualification and the associated unit standards 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.
- Internal and external moderation should encompass achievement of competence described in the exit level outcomes of the qualification as well as the integrated competence described in the purpose of the qualification.

**NOTES**

This qualification replaces qualification 24498, "National Certificate: Rail Operations (Train Control)", Level 4, 126 Credits.

**UNIT STANDARDS**

	<b>ID</b>	<b>UNIT STANDARD TITLE</b>	<b>LEVEL</b>	<b>CREDITS</b>
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	Level 3	5
Fundamental	119457	interpret and use information from texts	Level 3	5
Fundamental	119467	Use language and communication in occupational learning programmes	Level 3	5
Fundamental	119465	Write/present/sign texts for a range of communicative contexts	Level 3	5
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 4	6
Fundamental	7484	Describe, represent, analyse and explain changes in shape and motion in 2- and 3-dimensional space with justification	Level 4	4
Fundamental	119462	Engage in sustained oral/signed communication and evaluate spoken/signed texts	Level 4	5
Fundamental	119469	Read/view, analyse and respond to a variety of texts	Level 4	5
Fundamental	119471	Use language and communication in occupational learning programmes	Level 4	5
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 4	6
Fundamental	119459	Write/present/sign for a wide range of contexts	Level 4	5
Core	264373	Administer telegraph orders for safe movement on rail	Level 4	10
Core	264242	Co-ordinate operations of the heavy tamping machine	Level 4	3
Core	264379	Control rail movement by operating colour-light signals	Level 4	12
Core	260920	Explain the topographical concepts of a trajectory within the rail environment	Level 4	10
Core	264340	Administer pilot working of train control for safe movement on rail	Level 5	5
Core	264382	Develop a train service	Level 5	10
Elective	262449	Devise strategies for the maintenance of a healthy lifestyle	Level 3	4
Elective	116714	Lead a team, plan, allocate and assess their work	Level 3	4
Elective	264337	Administer Van Schoor system of train control for safe movement on rail	Level 4	10
Elective	264414	Administer radio train order system of train control for safe movement on rail	Level 4	5
Elective	264404	Administer wooden train staff system of train control for safe movement on rail	Level 4	5
Elective	264336	Control rail movement by operating semaphore signals and indicators on a double line system	Level 4	7
Elective	264334	Control rail movement by operating semaphore signals on single lines	Level 4	5
Elective	116594	Function in a team	Level 4	4
Elective	264415	Administer track warrant system of train control for safe movement on rail	Level 5	8

**LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION**

*None*



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Co-ordinate operations of the heavy tamping machine*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264242	Co-ordinate operations of the heavy tamping machine		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	3

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14648	Interface with trains during the working of the tamping	Level 4	3	Will occur as soon as 264242 is registered

**SPECIFIC OUTCOME 1**

Comply with the instructions for the working of the Heavy Tamping Machine.

**SPECIFIC OUTCOME 2**

Despatch Heavy Tamping Machine.

**SPECIFIC OUTCOME 3**

Protect Heavy Tamping Machine.

**SPECIFIC OUTCOME 4**

Despatch trains during the working of the Heavy Tamping Machine.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Core	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Control rail movement by operating semaphore signals on single lines*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264334	Control rail movement by operating semaphore signals on single lines		
<b>ORIGINATOR</b>			<b>PROVIDER</b>
SGB Rail and Pipeline Operations			
<b>FIELD</b>	<b>SUBFIELD</b>		
11 - Services	Transport, Operations and Logistics		
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	5

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14593	Control rail movement by operating semaphore signals and Indicators on on single lines	Level 5	5	Will occur as soon as 264334 is registered

**SPECIFIC OUTCOME 1**

Describe the station control layout.

**SPECIFIC OUTCOME 2**

Plan rail movement.

**SPECIFIC OUTCOME 3**

Operate lever-frame of semaphore signals and indicators.

**SPECIFIC OUTCOME 4**

Apply station opening and closing procedures.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

**Control rail movement by operating semaphore signals and indicators on a double line system**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264336	Control rail movement by operating semaphore signals and indicators on a double line system		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	7

**This unit standard replaces:**

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14606	Control rail movement by operating semaphore signalled double lines and indicators	Level 5	10	Will occur as soon as 264336 is registered

**SPECIFIC OUTCOME 1**

Describe the station control layout.

**SPECIFIC OUTCOME 2**

Plan rail movement.

**SPECIFIC OUTCOME 3**

Operate lever-frame of semaphore signals and indicators.

**SPECIFIC OUTCOME 4**

Apply station-opening and closing procedures.

**SPECIFIC OUTCOME 5**

Operate the semaphore signalling system in degraded mode.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Administer Van Schoor system of train control for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264337	Administer Van Schoor system of train control for safe movement on rail		
<b>ORIGINATOR</b>	<b>PROVIDER</b>		
SGB Rail and Pipeline Operations			
<b>FIELD</b>	<b>SUBFIELD</b>		
11 - Services	Transport, Operations and Logistics		
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	10

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14629	Administer Van Schoor system of train control for safe movement on rail	Level 4	10	Will occur as soon as 264337 is registered

**SPECIFIC OUTCOME 1**

Plan rail movement.

**SPECIFIC OUTCOME 2**

Make rail movement arrangements.

**SPECIFIC OUTCOME 3**

Authorise rail movement.

**SPECIFIC OUTCOME 4**

Communicate and record train movement according to train working rules.

**SPECIFIC OUTCOME 5**

Operate the Van Schoor instruments.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Administer pilot working of train control for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264340	Administer pilot working of train control for safe movement on rail		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 5	5

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14644	Administer and manage pilot working of train control for safe movement on rail	Level 5	4	Will occur as soon as 264340 is registered

**SPECIFIC OUTCOME 1**

Plan pilot working.

**SPECIFIC OUTCOME 2**

Introduce pilot working.

**SPECIFIC OUTCOME 3**

Implement pilot working.

**SPECIFIC OUTCOME 4**

Communicate relevant information continually.

**SPECIFIC OUTCOME 5**

Terminate pilot working.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Core	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Administer telegraph orders for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264373	Administer telegraph orders for safe movement on rail		
<b>ORIGINATOR</b>			<b>PROVIDER</b>
SGB Rail and Pipeline Operations			
<b>FIELD</b>			<b>SUBFIELD</b>
11 - Services			Transport, Operations and Logistics
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	10

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14624	Administer telegraph orders for safe movement on rail	Level 5	10	Will occur as soon as 264373 is registered

**SPECIFIC OUTCOME 1**

Plan rail movement.

**SPECIFIC OUTCOME 2**

Make rail movement arrangements.

**SPECIFIC OUTCOME 3**

Authorise rail movement.

**SPECIFIC OUTCOME 4**

Communicate and record train movement according to train working rules.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Core	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

**Control rail movement by operating colour-light signals**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264379	Control rail movement by operating colour-light signals		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	12

**This unit standard replaces:**

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14616	Control rail movement by operating colour-light signals	Level 5	15	Will occur as soon as 264379 is registered

**SPECIFIC OUTCOME 1**

Describe the station and section layout.

**SPECIFIC OUTCOME 2**

Plan rail movement.

**SPECIFIC OUTCOME 3**

Operate colour light signals and points from a console or panel.

**SPECIFIC OUTCOME 4**

Operate the colour light signalling system in degraded mode.

**SPECIFIC OUTCOME 5**

Apply station opening and closing procedures.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Core	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Develop a train service*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264382	Develop a train service		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 5	10

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14651	Plan, manage and communicate the train service	Level 5	10	Will occur as soon as 264382 is registered
14652	Plan, manage and execute occupation requests for maintenance of track and related infrastructure on rail	Level 5	5	Will occur as soon as 264382 is registered

**SPECIFIC OUTCOME 1**

Capture train requirement information.

**SPECIFIC OUTCOME 2**

Plan a train service.

**SPECIFIC OUTCOME 3**

Monitor the train movement in accordance with the plan.

**SPECIFIC OUTCOME 4**

Demonstrate knowledge of procedures to be implemented during degraded mode.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Core	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

**Administer wooden train staff system of train control for safe movement on rail**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264404	Administer wooden train staff system of train control for safe movement on rail		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	5

**This unit standard replaces:**

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14649	Administer wooden train staff system of train control for safe movement on rail	Level 4	5	Will occur as soon as 264404 is registered

**SPECIFIC OUTCOME 1**

Plan rail movement.

**SPECIFIC OUTCOME 2**

Make rail movement arrangements.

**SPECIFIC OUTCOME 3**

Authorise rail movement.

**SPECIFIC OUTCOME 4**

Communicate and record train movement according to train working rules.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Administer radio train order system of train control for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264414	Administer radio train order system of train control for safe movement on rail		
<b>ORIGINATOR</b>			<b>PROVIDER</b>
SGB Rail and Pipeline Operations			
<b>FIELD</b>			<b>SUBFIELD</b>
11 - Services			Transport, Operations and Logistics
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 4	5

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14635	Administer radio train order system of train control for safe movement on rail	Level 5	5	Will occur as soon as 264414 is registered

**SPECIFIC OUTCOME 1**

Plan rail movement.

**SPECIFIC OUTCOME 2**

Make rail movement arrangements.

**SPECIFIC OUTCOME 3**

Authorise rail movement by radio.

**SPECIFIC OUTCOME 4**

Communicate and record train movement according to train working rules.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

*Administer track warrant system of train control for safe movement on rail*

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
264415	Administer track warrant system of train control for safe movement on rail		
<b>ORIGINATOR</b>		<b>PROVIDER</b>	
SGB Rail and Pipeline Operations			
<b>FIELD</b>		<b>SUBFIELD</b>	
11 - Services		Transport, Operations and Logistics	
<b>ABET BAND</b>	<b>UNIT STANDARD TYPE</b>	<b>NQF LEVEL</b>	<b>CREDITS</b>
Undefined	Regular	Level 5	8

*This unit standard replaces:*

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
14647	Administer track warrant system of train control for safe movement on rail	Level 5	8	Will occur as soon as 264415 is registered

**SPECIFIC OUTCOME 1**

Plan rail movement.

**SPECIFIC OUTCOME 2**

Make rail movement arrangements.

**SPECIFIC OUTCOME 3**

Authorise rail movement.

**SPECIFIC OUTCOME 4**

Communicate and record train movement according to train working rules.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

	ID	QUALIFICATION TITLE	LEVEL
Elective	66669	Further Education and Training Certificate: Rail Operations (Train Control)	Level 4