No. 902   **28 September 2007**

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

Telecommunications

registered by Organising Field 06 – Manufacturing, Engineering and Technology, 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 full Qualification and Unit Standards can be accessed via the SAQA web-site at **www.saqa.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 Qualification and Unit Standards should reach SAQA at the address below and *no later than 26 October 2007.* All correspondence should be marked **Standards Setting – Telecommunications** and addressed to

The Director: Standards Setting and Development SAQA *Attention: Mr. D. Mphuthing* Postnet Suite 248 Private Bag X06 Waterkloof 0145 or faxed to 012 – 431-5144 e-mail: dmphuthing@saqa.org.za

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SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA

QUALIFICATION:
Further Education and Training Certificate: Telecommunication Network Operations

SAQA QUAL ID	QUALIFICATION TITLE		
59057	Further Education and Training Certificate: Telecommunication Network Operations		
ORIGINATOR		PROVIDER	
SGB Telecommunications			
QUALIFICATION TYPE	FIELD	SUBFIELD	
Further Ed and Training Cert	6 - Manufacturing, Engineering and Technology	Engineering and Related Design	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	150	Level 4	Regular-Unit Stds Based

PURPOSE OF THE QUALIFICATION
Purpose:

This qualification will equip a person to perform duties in the Network Operations environment within the telecommunications Industry. Telecommunications covers a wide range of specialisation areas.

This qualification provides the competencies required for the following:

- ICT Network Management and surveillance.
- TCP/IP Networks Operations.
- CPE Installation and Maintenance.
- Transport Systems Operations.
- Telecommunication Cable Maintenance.
- Telecommunication Cable Installation.
- Telecommunication Line Operations.
- Indoor Plant Installation.

Each specialisation area encompasses a unique, autonomous job function. The qualifying learner will have acquired the knowledge and be able to function as a competent operations specialist in one of the specialisation areas listed above. Multiple specialisations is not a requirement for this qualification although natural progression is desirable and allowed.

The competencies required for this qualification may be acquired through learnerships or skills programs. Acquiring this qualification has the benefit of addressing problems historically associated with non-OBE training where newly qualified people struggled to get employment due to a lack of experiential training in the workplace.

Rationale:

The Telecommunications landscape has been impacted tremendously by the onset of Convergence, Legislation and Regulation, and by the rapid evolution and expansion of new data and network services enabled by Next Generation technologies and telecommunications infrastructure.

No qualification in telecommunications networks operations currently exists to accurately address the skills requirements posed by industry evolution and development.

This qualification therefore aims to address the skills development needs of specifically the Telecommunications Network Operations environment.

The qualification provides prospective candidates with specialization areas from which to elect, in anticipation of career choices in the ICT sector. The knowledge and skills obtained during the learning process towards this qualification provides the learner with a set of competencies that can be applied and are in demand in the ICT environment.

This will enhance the learner's opportunities to gain employment in areas as diverse as security systems, data networks, broadcasting and mobile communication.

The qualification enables learners to perform first-line installation, operations, and maintenance in the disciplines listed above.

This qualification provides learnership opportunities for entrants to the ICT industry and also for current ICT workers to receive recognition for prior learning.

This qualification was developed to address the needs of the industry in a format which supports the objectives of the NQF:

- To create an integrated national framework for learning achievements.
- Facilitate access to, and mobility and progression within education, training and career paths.
- Enhance the quality of education and training.
- Accelerate the redress of past unfair discrimination in education, training and employment opportunities.
- Contribute to the full personal development of each learner and the social and economic development of the nation at large.

RECOGNIZE PREVIOUS LEARNING?
Y

LEARNING ASSUMED IN PLACE
It is assumed that the learner is already competent in maths and communication at NQF Level 3.

Recognition of Prior Learning:

This qualification may be achieved through the recognition of prior learning, which includes formal, non-formal learning and work experience. To achieve the qualification through RPL, the learner must present him/herself to be assessed against the integrated assessment criteria of this qualification.

Any learner wishing to be assessed to achieve credits in respect of any of the unit standards specified in this qualification may arrange for an RPL assessment.

Access to the Qualification:

There is open access to the qualification. An item of consideration is the diversity of functions which are covered. Some of these require colour recognition and/or bipedal mobility which will affect the employment options for someone who acquires this qualification but is handicapped in this way.

QUALIFICATION RULES

Rules regarding NQF Levels, credits, and qualification.

The qualification consists of a minimum combination of 150 credits. The specialisation area (elected cluster) will determine the actual number of credits required.

Rules regarding Fundamentals:

All fundamental unit standards are compulsory for this qualification (56 credits).

These fundamental credits are made up as follows:

- Communication: 20 credits at NQF Level 4.
- Second Language: 20 credits at NQF Level 3.
- Mathematics: 16 credits at NQF Level 4.

Core:

All core unit standards are compulsory (76 credits).

Electives:

There are 9 specialisation area clusters.

Each of the 8 clusters:

- Focuses on competencies required in different specialisation areas of telecommunications operations.
- Will contribute different credit counts to the total credit count of the qualification.
- Require that the learner obtain all the credit in the cluster.

A minimum of 18 credits is required from the elective component to make up 150 credits required to obtain the qualification.

The following rules apply for specialisation areas:

Elective Cluster 01: Specialisation Area 1 (ICT Network Management and surveillance).

This cluster on its own complies with the elective requirements for this qualification. The following unit standards are included:

Unit Standard ID; Unit Standard Name; Level; Credits:

- ID 246663; Perform surveillance on Information and Communications technology networks; Level 5; 10 credits.
- ID 114052; Demonstrate appropriate customer care in the context of IT support according to a service level agreement (SLA); Level 5; 8 credits.

Elective Cluster 02: Specialisation Area 2 (TCP/IP Networks):

This cluster on its own complies with the elective requirements for this qualification. The following unit standards are included:

Unit Standard ID; Unit Standard Name; Level; Credits:

- ID 246672; Perform operations on Internet Protocol networks; Level 5; 11 credits.

Elective Cluster 03: Specialisation Area 3 (Customer Premises Equipment (CPE) Installation and Maintenance):

This cluster on its own complies with the elective requirements for this qualification. The following unit standards are included:

Unit Standard ID; Unit Standard Name; Level; Credits:

- ID 246685; Configure and commission electronic equipment for ISDN products and services; Level 4; 4 credits.
- ID 10482; Perform customer equipment fault clearance; Level 4; 24 credits.
- ID 10453; Schedule customer equipment installation; Level 4; 4 credits.
- ID 10452; Recover customer equipment; Level 4; 5 credits.

Elective Cluster 04: Specialisation Area 4 (Transport Systems):

This cluster on its own complies with the elective requirements for this qualification. The following unit standards are included:

Unit Standard ID; Unit Standard Name; Level; Credits:

- ID 246680; Demonstrate an Understanding of Telecommunications Transport Concepts and Principles; Level 3; 8 credits.
- ID 246681; Perform operational activities on- SDH_PDH systems; Level 4: 17 credits.
- ID 246666; Perform operational activities on- Multi-channel Optical Fibre systems; Level 4; 3 credits.
- ID 246722; Perform Indoor Optical Fibre Testing; Level 4; 3 credits.

Elective Cluster 05: Specialisation Area 5 (Telecommunication Cable Maintenance):

This cluster on its own complies with the elective requirements for this qualification. The following unit standards are included:

Unit Standard ID; Unit Standard Name; Level; Credits:

- ID 246724; Perform operational activities on pressurised transmission mediums; Level 4; 7 credits.
- ID 246720; Perform operational activities on Non-Metallic Telecommunication Media; Level 5: 16 credits.
- ID 246657; Maintain Metallic Telecommunication Cables; Level 5: 16 credits.

Elective Cluster 06: Specialisation Area 6 (Telecommunication Cable Installation):

This cluster on its own complies with the elective requirements for this qualification. The following unit standards are included:

Unit Standard ID; Unit Standard Name; Level; Credits:

- ID 246723; Terminate Metallic Telecommunication Cables; Level 4; 8 credits.
- ID 246721; Install Distribution Point Cable; Level 4; 10 credits.
- ID 246719; Erect and haul optic cables for telecommunication purposes; Level 4; 8 credits.
- ID 246661; Join Metallic Telecommunication Cables; Level 4; 10 credits.
- ID 246662; Test Metallic Telecommunication Cables; Level 5; 16 credits.