

No. 1031

21 October 2005



### 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

#### Occupational Health and Safety

Registered by Organising Field 09, Health Sciences and Social 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 qualifications 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 unit standards should reach SAQA at the address **below and no later than 20 November 2005**. All correspondence should be marked **Standards Setting – SGB for Occupational Health and Safety** and addressed to

The Director: Standards Setting and Development  
SAQA  
**Attention: Mr. E. Brown**  
Postnet Suite 248  
Private Bag X06  
Waterkloof  
**0145**  
or faxed to 012 – 431-5144  
e-mail: [ebrown@saga.co.za](mailto:ebrown@saga.co.za)

  
DUGMORE MPHUTHING  
ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### QUALIFICATION:

#### *National Certificate: Occupational Hygiene and Safety*

SAQA QUAL ID	QUALIFICATION TITLE		
50062	National Certificate: Occupational Hygiene and Safety		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
QUAL TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD	
National Certificate	Health Sciences and Social Services	Preventive Health	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
Undefined	144	Level 3	Regular-Unit Stds Based

#### **PURPOSE AND RATIONALE OF THE QUALIFICATION**

Purpose:

This qualification enables learners to identify, evaluate, advise and report on occupational safety, hygiene and environmental factors, in occupational environments, which may have a detrimental effect on the health and safety of workers in such environments. The qualification is designed to be flexible and accessible.

Learners credited with this qualification are capable of:

- > Performing essential inspections, measurements and evaluations to ensure health and safety in occupational environments.
- > Communicating effectively using visual, mathematical and language skills in the modes of oral and written presentation.
- > Solving mathematical problems related to finances, patterns, statistics, shape and motion using numbers and number systems.
- > Describing concepts and principles in science and the natural environment.
- > Operating personal computers and computer systems.
- > Collecting, analysing, organising and critically evaluating information about occupational hygiene, safety and environmental conditions and elements using science and technology effectively and critically to measure them.
- > Identifying and solving problems to make responsible decisions regarding workplace hazards and risks.
- > Ensuring a safe and healthy workplace environment and conduct.

Working effectively with others as a member of a team, group, organisation or community to attain operational competence in occupational safety and hygiene.

Rationale:

Learners credited with this qualification are likely to be working in the occupational safety, hygiene and environmental disciplines. Learners are required to integrate practical skills with essential knowledge, to be able to take proactive and reactive measures in order to maintain a healthy and safe environment.

In South Africa and internationally, the social and economic impact of occupational safety, hygiene, health, and environment is great. Direct costs that result from poor workplace safety, hygiene, health, and environments include both human and economic costs. Indirect costs are also incurred and include aspects such as poor morale, poor productivity, and downtime. Improved workplace safety, hygiene, health, and environments could influence the South African economy in direct costs alone to the value of millions of Rands each year. This qualification aims to meet the demand for learners that are able to facilitate a safe, healthy and productive occupational environment.

There is a critical need in the industry to recognise learner competence regarding essential operations associated with a healthy, safe and productive working environment. This qualification is the next step in a career path in one of the areas of specialisation in Occupational Safety and Hygiene. It is generic enough to allow maximum mobility within the field of application. Skills, knowledge, values and attitudes (competencies) reflected in the qualification are building blocks towards a level 4 qualification.

### **RECOGNIZE PREVIOUS LEARNING?**

Y

### **LEARNING ASSUMED TO BE IN PLACE**

- > Communications NQF Level 2.
- > Mathematical Literacy NQF Level 2.
- > Independent learning.

In addition, competence in the following unit standards:

- > Demonstrate an understanding of the concept of science: SAQA ID 7507
- > Demonstrate an understanding of fundamental concepts and principles in natural science: SAQA ID 14110

Recognition of prior learning:

This qualification can be achieved wholly, or in part, through recognition of prior learning. Evidence of competency can be presented in a variety of forms, including previous international or local qualifications, reports, testimonials, mentoring, functions performed, portfolios, work records and performance records. Learners who have met the requirements of any unit standard that forms part of this qualification may apply for recognition of prior learning to the relevant Education and Training Quality Assurance body (ETQA) or ETQA which has a Memorandum of Understanding with the relevant ETQA.

### **QUALIFICATION RULES**

All Fundamental component unit standards are compulsory (41 credits must be attained):

- > 20 credits for Communication and Language
- > 16 credits for Mathematical Literacy
- > 5 credits for Computer Literacy

All Core component unit standards are compulsory (97 credits must be attained).

The Elective Component consists of a number of unit standards from which at least 6 credits must be attained.

### **EXIT LEVEL OUTCOMES**

1. Communicate effectively using visual, mathematical and language skills in the modes of oral and written presentation.
2. Solve mathematical problems related to finances, patterns, statistics, shape and motion using numbers and number systems.
3. Use a computer and computer systems.
4. Use science and technology effectively to collect, analyse, organise and critically evaluate information about occupational hygiene, safety and workplace environmental conditions.
5. Identify and solve problems to make responsible decisions regarding workplace hazards and risks.

Critical Cross-Field Outcomes:

This qualification addresses the following critical cross-field outcomes, as detailed in the associated unit standards:

- > Identifying and solving problems in which responses indicate that responsible decisions using critical and creative thinking have been made.

This critical cross-field outcome is addressed primarily through ELO1 and ELO5.

- > Working effectively with others as a member of a team, group, organisation or community.

This critical cross-field outcome is addressed primarily through ELO1 and ELO5.

- > Organising and managing oneself and one's activities responsibly and effectively.

This critical cross-field outcome is addressed primarily through ELO5.

> Collecting, analysing, organising and critically evaluating information.

This critical cross-field outcome is addressed primarily through ELO2, ELO3 and ELO4.

> Communicating effectively using visual, mathematical and/or language skills in the modes of oral/written persuasion.

This critical cross-field outcome is addressed primarily through ELO1 and ELO3.

> Using science and technology effectively and critically, showing responsibility towards the environment and health of others.

This critical cross-field outcome is addressed primarily through ELO4 and ELO5.

> Demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

This critical cross-field outcome is addressed primarily through ELO1, ELO2, ELO3, ELO4 and ELO5.

Learning programmes directed towards this qualification will also contribute to the full personal development of each learner and the social and economic development of the society at large, by making individuals aware of the importance of:

1. Reflecting on and exploring a variety of strategies to learn more effectively.
2. Participating as responsible citizens in the life of local, national and global communities.
3. Being culturally and aesthetically sensitive across a range of social contexts.
4. Exploring education and career opportunities; and developing entrepreneurial opportunities.

#### **ASSOCIATED ASSESSMENT CRITERIA**

1.

> Information from texts such as standing instructions, visual information and other responses is accessed and used appropriately and effectively.

> Oral communication is maintained and adapted as required to promote effective interaction in the work context.

> Written communication is clear and unambiguous and at an appropriate level for the designated target audience.

2.

> Related problems are solved by using basic mathematical functions.

> Life and work related problems are investigated using relevant statistics.

3.

> Computers and relevant software are used effectively for specified contexts.

> Use of personal computer systems meet security requirements.

4.

> Occupational hygiene, safety and environmental conditions and elements are described according to specified requirements.

> Relevant methods of measurement are identified and described according to specified requirements.

> Instruments and techniques selected for measurement are appropriate for specified contexts and purposes.

> Relevant legal and other context-specific requirements are adhered to.

5.

> Occupational safety, hygiene and environment principles are described.

> Workplace hazards and risks are identified, addressed, recorded and reported according to specified procedures and requirements.

> Appropriate corrective and/or mitigation measures are implemented according to standard operating procedures.

> Personal protective and monitoring equipment is used as specified.

Integrated Assessment:

Assessment is not a single event, but rather a structured process of gathering evidence and making judgements of the learner's performance in relation to the qualification. A range of methods may be used for formative and summative assessment.

These may include:

> Written and oral tests.

- > Simulation sessions.
- > Peer group presentations.
- > Written reports and/or work plans.

Assessment should take place within the protocols and procedures of the place of learning and according to the specifications indicated in the unit standard.

### **INTERNATIONAL COMPARABILITY**

This qualification and its component unit standards has been compared with those of other countries. After an extensive search it became clear that Occupational Health and Safety training in the SADC region is almost non-existent as is evident from a Southern African Meeting on The Education and Training of Occupational Health and Safety Professionals, Johannesburg, South Africa, 22-24 October 1997. (Source: <http://www.asosh.org/SADC/training.htm> accessed 5 June 2005).

A network of occupational health institutes assigned as WHO collaborating centers published a "Global strategy for occupational health for all" in 1995 with 10 priority objectives, later adopted by the World Health Assembly. The most notable of these objectives is the development of human resources for occupational health and is explained by saying there is a universal shortage of both expert resources and training in developing and newly industrialized countries in the South. (Source: Occupational Safety and Health in Developing Countries, Review of strategies, case studies and a bibliography, Christer Hogstedt and Bodhi Pieris <http://www.niwl.se/arb/> accessed 12 June 2005).

It must be remembered that the WHO sees occupational safety as part of occupational health. From the case studies in the report it also becomes apparent that no formal educational structure or learning on occupational health and safety (OHS) exists in countries like Thailand, Malaysia, South East Asia, Central America, India, Zimbabwe and Costa Rica.

A conclusion can thus be drawn that South Africa is a leader in developing occupational health and safety qualifications in developing countries and can in this instance be compared to developed countries that have established a qualifications framework in a national as well as functional context. Such countries are most notably Australia, New Zealand and the United Kingdom.

This qualification does not exist at the equivalent level on frameworks in New Zealand, United Kingdom, and Australia. Qualifications in OHS in those countries all start at the next higher level.

On the Australian framework, occupational health, safety and environment qualifications fall within the Vocational Education and Training sector, which recognises skills and knowledge that meet nationally endorsed industry/enterprise competency standards as agreed for those qualifications by the relevant industry, enterprise, community or professional group. The available qualifications also include literacy and numeracy, communication, working in teams (critical cross field outcome on the South African NQF), workplace technology, and industry specific competencies. Various programmes are available, including a Certificate III in Occupational Health and Safety, Certificate IV in Auditing Occupational Health and Safety Systems, Certificate IV in Occupational Health and Safety, and a Diploma of Occupational Health and Safety. A Certificate III is equivalent to grade 12, South African NQF Level 4.

In the United Kingdom, no equivalent for the South African NQF Level 3 qualification exists. A Foundation certificate in Health and safety in a workplace is available, within the Hospitality sector. In addition, National Vocational Qualifications exist for Security, Safety and Loss Prevention at Level 2, Occupational Health and Safety at Level 3 (Grade 12 or NQF Level 4 equivalent in South Africa), Occupational Health and Safety Practice at Levels 4 and 5 and Health and Safety Regulation at Level 5. Other than these, health, safety and environmental issues are integrated within most other relevant qualifications, such as general science (equivalent to NQF Level 1 in South Africa), design, and engineering. In Scotland, two Vocational qualifications are provided, namely, Occupational Health and Safety Practice at Level 3, and Occupational Health and Safety Practice at Level 4.

The New Zealand NQF places occupational health and safety within the fields of Health, Manufacturing (Dairy Workplace Health and Safety) and Planning and Construction (Construction Health and Safety and Injury Prevention). The South African equivalent is in the field of Health, specifically Occupational Health and Safety. The South African NQF Level 4 is the equivalent of the New Zealand NQF Level 3. Two qualifications are registered in the field of Health, on the New Zealand NQF, namely, a National Certificate in Occupational Health and Safety (Co-ordination) (Level 4), and a National Certificate in Occupational Health and Safety (Workplace Safety) (Level 3).

Unit standards on the New Zealand NQF are mostly at a higher level than our level three qualification but

start at the equivalent of our level four qualification, and include, but are not restricted to, the following:

Title,level,credits:

- > Protect health and safety in a workplace,1,1
- > Apply safe work practices in the workplace,2,4
- > Undertake job safety analysis,2,4
- > Apply for, accept, and carry out work according to a work permit in the workplace,3,4
- > Apply hazard identification and risk assessment procedures in the workplace,3,4
- > Demonstrate knowledge of electrical safety in the workplace,3,5
- > Demonstrate knowledge of fire and emergency warden duties in the workplace,3,3
- > Demonstrate knowledge of hazards associated with confined space,3,4
- > Demonstrate knowledge of hearing conservation in the workplace,3,4
- > Explain safe work practices for working at heights,3,3
- > Identify the causes of back injury and methods to prevent back injuries in the workplace,3,4
- > Demonstrate knowledge of safety observer responsibilities in the workplace,3,8
- > Issue work site specific work permits,3,6
- > Use a forklift mounted safety platform in the workplace,3,5

### ARTICULATION OPTIONS

This qualification can provide access to learners to progress to higher-level qualifications in the discipline of Occupational Safety, Hygiene, and in various industrial sectors and related sub-fields. Most qualifications on the NQF require competence regarding this discipline, and thus provide an access point to, for example qualifications in, inter alia, the Physical Planning and Construction, Manufacturing, Engineering, and Technology and the Business, Commerce and Management fields.

□

The qualification, through the fundamental component for communication and mathematical literacy, articulates horizontally with all NQF registered qualifications at NQF Level 3, and vertically with NQF Levels 2 and 4.

### MODERATION OPTIONS

Any provider offering learning that will enable the achievement of this qualification must be accredited as a provider by the relevant ETQA or an ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

> Moderation of assessment will be overseen by the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

### CRITERIA FOR THE REGISTRATION OF ASSESSORS

- > Be registered as assessors with the relevant ETQA or an ETQA that has a Memorandum of Understanding in place with the relevant ETQA.
- > Be in possession of a relevant qualification at least at NQF level 4.
- > Have at least five years experience in the OHS sector.

### NOTES

N/A

### UNIT STANDARDS

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

	UNIT STANDARD ID AND TITLE	LEVEL	CREDITS	STATUS
Core	117924 Use a Graphical User Interface(GUI)-based word processor to format documents	Level 2	5	Registered
Core	120317 Demonstrate understanding of a Workplace Heating Conservation Programme and measure noise levels, and take appropriate action	Level 3	6	Draft - Prep for P Comment
core	120319 Demonstrate basic knowledge and understanding of airborne pollutants and control measures	Level 3	4	Draft - Prep for P Comment
core	120321 Measure acceleration of vibration	Level 3	2	Draft - Prep for P Comment
Core	120324 Collect airborne particulates in the environment using a high volume gravimetric sampler	Level 3	3	Draft - Prep for P Comment

core	120325 Monitor, report and advise on the application of safety and health principles regarding the movement of people and materials in and around a working place	Level 3	7	Draft - Prep for P Comment
core	120328 Demonstrate knowledge of psychrometric charts and perform calculations	Level 3	5	Draft - Prep for P Comment
Core	120329 Respond to, implement and manage emergencies according to an emergency action plan in a workplace	Level 3	2	Draft - Prep for P Comment
core	120330 Conduct a continuous risk assessment in a workplace	Level 3	4	Draft - Prep for P Comment
core	120331 Demonstrate knowledge pertaining to fires in working places	Level 3	3	Draft - Prep for P Comment
Core	120332 Monitor, report and advise on the application of safety and health principles regarding electricity in a work place.	Level 3	3	Draft - Prep for P Comment
core	120333 Conduct, report and follow up on a pre-use, safety and/or audit inspection	Level 3	5	Draft - Prep for P Comment
core	120335 Conduct an investigation into workplace incidents	Level 3	5	Draft - Prep for P Comment
core	120336 Provide primary emergency care/first aid as an advanced first responder in the workplace	Level 3	6	Draft - Prep for P Comment
core	120337 Demonstrate knowledge pertaining to the preparation, conducting, recording and follow-up actions of a planned task observation in a workplace	Level 3	2	Draft - Prep for P Comment
core	120338 Determine the amount of mineral dust and particulate matter in water by means of a nephelometer and turbidimeter respectively	Level 3	5	Draft - Prep for P Comment
Core	120339 Determine the concentration of respirable dust using a direct reading instrument	Level 3	3	Draft - Prep for P Comment
core	120362 Monitor, report and make recommendations pertaining to specified requirements in terms of working at heights	Level 3	4	Draft - Prep for P Comment
core	120322 Demonstrate knowledge of fans, fan measurements and performance	Level 4	5	Draft - Prep for P Comment
core	120326 Assess the performance of a heat exchanger and take appropriate action	Level 4	3	Draft - Prep for P Comment
core	120334 Conduct routine monitoring of a fan's performance and installation	Level 4	4	Draft - Prep for P Comment
core	120340 Determine a refrigeration plant duty with respect to water circuits and recommend appropriate remedial action	Level 4	3	Draft - Prep for P Comment
core	120344 Demonstrate knowledge and understanding of relevant current occupational health and safety legislation	Level 4	4	Draft - Prep for P Comment
core	120359 Monitor, report and make recommendations on the specified requirements that applies to permit to work systems in a working	Level 4	4	Draft - Prep for P Comment
Elective	9964 Apply health and safety to a work area	Level 2	3	Reregistered
Elective	115089 Measure virgin rock temperature	Level 2	2	Registered
Elective	115090 Install explosion barriers to control the propagation of coal dust explosions	Level 2	2	Registered
Elective	115103 Sample and evaluate a mixture of coal dust and stone dust	Level 2	3	Registered
Elective	116516 Apply stone dust to inertise coal dust	Level 2	2	Registered
Elective	120323 Analyse a mixture of coal dust and stone dust sample by means of colorimetric method and recommend appropriate remedial action	Level 2	2	Draft - Prep for P Comment
Elective	120318 Determine the long-lived alpha activity on a dust-laden filter with an alpha counter	Level 3	2	Draft - Prep for P Comment
Elective	120351 Collect and prepare water sample for radionuclide analysis	Level 3	3	Draft - Prep for P Comment
Elective	120346 Measure radioactive contamination by means of a surface contamination monitor	Level 4	2	Draft - Prep for P Comment
Elective	120356 Measure low-level gamma radiation by means of a portable dosimeter	Level 4	2	Draft - Prep for P Comment
Fundamental	7456 Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Level 3	5	Reregistered
Fundamental	8968 Accommodate audience and context needs in oral communication	Level 3	5	Reregistered
Fundamental	8969 Interpret and use information from texts	Level 3	5	Reregistered
Fundamental	8970 Write texts for a range of communicative contexts	Level 3	5	Reregistered
Fundamental	8973 Use language and communication in occupational learning programmes	Level 3	5	Reregistered
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	Reregistered
Fundamental	9012 Investigate life and work related problems using data and probabilities	Level 3	5	Reregistered
Fundamental	9013 Describe, apply, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 3	4	Reregistered

Fundamental	119078 Use a GUI-based word processor to enhance a document through the use of tables and columns	Level 3	5	Registered
-------------	---	---------	---	------------

---





## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:**

Demonstrate understanding of a Workplace Hearing Conservation Programme and measure noise levels, and take appropriate action

SAQA US ID	UNIT STANDARD TITLE		
120317	Demonstrate understanding of a Workplace Hearing Conservation Programme and measure noise levels, and take appropriate action		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	6	Level 3	Regular

**SPECIFIC OUTCOME 1**

Explain the basic mechanism of human hearing.

**SPECIFIC OUTCOME 2**

Describe the causes and effects of exposure to noise.

**SPECIFIC OUTCOME 3**

Demonstrate understanding of control measures to reduce noise exposure.

**SPECIFIC OUTCOME 4**

Demonstrate knowledge and understanding of noise level monitoring and measuring procedures.

**SPECIFIC OUTCOME 5**

Demonstrate knowledge pertaining to the measurement of sound levels and the determination of personal equivalent noise exposure levels.

**SPECIFIC OUTCOME 6**

Prepare to determine noise or personal equivalent exposure levels, measure sound levels and collect relevant data,

**SPECIFIC OUTCOME 7**

Report, make recommendations and deal with equipment.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Demonstrate basic knowledge and understanding of airborne pollutants and control measures**

SAQA US ID	UNIT STANDARD TITLE		
120319	Demonstrate basic knowledge and understanding of airborne pollutants and control measures		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 3	Regular

**SPECIFIC OUTCOME 1**

Demonstrate knowledge pertaining to airborne pollutants.

**SPECIFIC OUTCOME 2**

Demonstrate knowledge pertaining to airborne pollutant control measures.

**SPECIFIC OUTCOME 3**

Describe the monitoring methods pertaining to airborne pollutants.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

#### Measure acceleration of vibration

SAQA US ID	UNIT STANDARD TITLE		
120321	Measure acceleration of vibration		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	2	Level 3	Regular

#### **SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to the measurement of acceleration.

#### **SPECIFIC OUTCOME 2**

Prepare to measure.

#### **SPECIFIC OUTCOME 3**

Measure acceleration levels.

#### **SPECIFIC OUTCOME 4**

Perform post-measuring activities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Collect airborne particulates in the environment using a high volume gravimetric sampler**

SAQA US ID	UNIT STANDARD TITLE		
120324	Collect airborne particulates in the environment using a high volume gravimetric sampler		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	3	Level 3	Regular

#### **SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to determining airborne particulates by means of a high volume gravimetric sampler.

#### **SPECIFIC OUTCOME 2**

Prepare sampling equipment.

#### **SPECIFIC OUTCOME 3**

Sample the environment.

#### **SPECIFIC OUTCOME 4**

Record, evaluate, report and deal with equipment.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120325	Monitor, report and advise on the application of safety and health principles regarding the movement of people and materials in and around a working place		
<b>SGB NAME</b>	<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>	
SGB Occupational Health and Safety	9		
<b>UNIT STANDARD TYPE</b>	<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>	
Regular	Health Sciences and Social Services	Preventive Health	
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	7	Level 3	Regular

#### **SPECIFIC OUTCOME 1**

Explain structural safety principles and considerations in a working place as regards to the movement of people and materials.

#### **SPECIFIC OUTCOME 2**

Demonstrate the safe manual handling of materials in a workplace.

#### **SPECIFIC OUTCOME 3**

Explain the requirements pertaining to the mechanical handling of material at the workplace.

#### **SPECIFIC OUTCOME 4**

Explain the requirements pertaining to the safe movement of people where handling of material by means of motorised equipment is taking place.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

Demonstrate knowledge of psychrometric charts and perform calculations

SAQA US ID		UNIT STANDARD TITLE	
120328		Demonstrate knowledge of psychrometric charts and perform calculations	
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Occupational Health and Safety		9	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Health Sciences and Social Services	Preventive Health
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	5	Level 3	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge and understanding of psychrometric fundamentals.

#### **SPECIFIC OUTCOME 2**

Demonstrate understanding of psychrometric and density charts.

#### **SPECIFIC OUTCOME 3**

Perform basic psychrometry calculations.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
120329	Respond to, implement and manage emergencies according to an emergency action plan in a workplace		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	2	Level 3	Regular

**SPECIFIC OUTCOME 1**

Describe the specified requirements pertaining to responding to emergencies according to an emergency action plan in a workplace.

**SPECIFIC OUTCOME 2**

Implement and manage emergency action plan procedures.

**SPECIFIC OUTCOME 3**

Respond to emergencies according to action plan procedures.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

Conduct a continuous **risk** assessment **in** a workplace

SAQA US ID	UNIT STANDARD TITLE		
120330	Conduct a continuous risk assessment in a workplace		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 3	Regular

#### SPECIFIC OUTCOME 1

Explain the legal and specified requirements for conducting continuous risk assessments.

#### SPECIFIC OUTCOME 2

Prepare to conduct a continuous risk assessment.

#### SPECIFIC OUTCOME 3

Conduct a continuous risk assessment.

#### SPECIFIC OUTCOME 4

Initiate remedial action and follow up on Continuous Risk Assessment.





## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

*UNIT STANDARD:***Demonstrate knowledge pertaining to fires in working places**

SAQA US ID	UNIT STANDARD TITLE		
120331	Demonstrate knowledge pertaining to fires in working places		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	3	Level 3	Regular

**SPECIFIC OUTCOME 1**

Demonstrate basic knowledge pertaining to fires.

**SPECIFIC OUTCOME 2**

Demonstrate knowledge of the causes and prevention of working place fires.

**SPECIFIC OUTCOME 3**

Demonstrate knowledge of fire detection methods.

**SPECIFIC OUTCOME 4**

Demonstrate knowledge pertaining to fire preparedness.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

Monitor, **report** and advise **on** the application of safety and health principles regarding **electricity in a work place.**

SAQA US ID	UNIT STANDARD TITLE		
120332	Monitor, report and advise on the application of safety and health principles regarding electricity in a work place.		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	3	Level 3	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge regarding the features and nature of an electric circuit in the workplace.

#### **SPECIFIC OUTCOME 2**

Demonstrate knowledge regarding hazards associated with electricity and the application of the correct first-aid procedures in the work place.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge and the application of control measures regarding electricity to prevent injuries in the workplace.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:**

Conduct, report and follow up on a pre-use, safety and/or audit inspection

SAQA US ID	UNIT STANDARD TITLE		
120333	Conduct, report and follow up on a pre-use, safety and/or audit inspection		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	5	Level 3	Regular

**SPECIFIC OUTCOME 1**

Explain the legal and specified requirements pertaining to conducting, reporting and acting on the outcome of a pre-use, safety and/or audit inspection.

**SPECIFIC OUTCOME 2**

Prepare for the inspections.

**SPECIFIC OUTCOME 3**

Conduct pre-use, safety and audit inspections.

**SPECIFIC OUTCOME 4**

Initiate immediate remedial action where necessary.

**SPECIFIC OUTCOME 5**

Report on and follow up on inspection results.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

#### Conduct an investigation into workplace incidents

SAQA US ID	UNIT STANDARD TITLE		
120335	Conduct an investigation into workplace incidents		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	5	Level 3	Regular

#### **SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to conducting an investigation into workplace incidents.

#### **SPECIFIC OUTCOME 2**

Prepare to gather data for the investigation.

#### **SPECIFIC OUTCOME 3**

Gather and evaluate data.

#### **SPECIFIC OUTCOME 4**

Perform post-investigation functions.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Provide primary emergency care/first aid as an advanced first responder in the workplace**

SAQA US ID	UNIT STANDARD TITLE		
120336	Provide primary emergency care/first aid as an advanced first responder in the workplace		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	6	Level 3	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate the principles of primary emergency care in all health emergencies for persons in the workplace.

#### **SPECIFIC OUTCOME 2**

Sustain advanced level of preparedness to deal with emergencies in the workplace.

#### **SPECIFIC OUTCOME 3**

Assess and manage a multiple injured emergency scene/disaster in the workplace.

#### **SPECIFIC OUTCOME 4**

Demonstrate knowledge and understanding of anatomy and physiology of the human body and the specific disorders and diseases relating to each system.

#### **SPECIFIC OUTCOME 5**

Demonstrate primary emergency life support for adults, children and infants according to current international protocols.

#### **SPECIFIC OUTCOME 6**

Explain and manage shock.

#### **SPECIFIC OUTCOME 7**

Conduct secondary assessment of the sick or injured person and provide appropriate advanced primary emergency care.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
120337	Demonstrate knowledge pertaining to the preparation, conducting, recording and follow-up actions of a planned task observation in a working place		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	2	Level 3	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge of how to prepare for planned task observation at a working place.

#### **SPECIFIC OUTCOME 2**

Conduct a planned task observation at a working place.

#### **SPECIFIC OUTCOME 3**

Record and follow-up.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:**

Determine the amount of mineral dust and particulate matter in water by means of a nephelometer and turbidimeter respectively

SAQA US ID	UNIT STANDARD TITLE		
12033	Determine the amount of mineral dust and particulate matter in water by means of a		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	5	Level 3	(Regular)

**SPECIFIC OUTCOME 1**

Demonstrate knowledge of the specified requirements pertaining to determining the amount of mineral dust in water.

**SPECIFIC OUTCOME 2**

Demonstrate knowledge of the specified requirements pertaining to determining the amount of particulate matter in water.

**SPECIFIC OUTCOME 3**

Prepare to determine the amount of mineral dust and particulate matter in a water sample.

**SPECIFIC OUTCOME 4**

Determine the amount of mineral dust and particulate matter in a water sample.

**SPECIFIC OUTCOME 5**

Perform post-measuring activities.



<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120339	Determine the concentration of respirable dust using a direct reading instrument		
<b>SGB NAME</b>	<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>	
SGB Occupational Health and Safety	9		
<b>UNIT STANDARD TYPE</b>	<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>	
Regular	Health Sciences and Social Services	Preventive Health	
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	3	Level 3	Regular

**SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to the sampling of air by means of a real time dust monitor to determine the concentration of aerosols and recommend appropriate remedial action.

**SPECIFIC OUTCOME 2**

Prepare to sample the air by means of a real time dust monitor.

**SPECIFIC OUTCOME 3**

Sample air for aerosol concentration.

**SPECIFIC OUTCOME 4**

Perform post-sampling activities.





## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Monitor, report and make recommendations pertaining to specified requirements in terms of working at heights**

SAQA US ID	UNIT STANDARD TITLE		
120362	Monitor, report and make recommendations pertaining to specified requirements in terms of working at heights		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CAEDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 3	Regular

#### **SPECIFIC OUTCOME 2**

Describe the requirements to inspect, care, store fall arrest equipment effectively and correctly / records.

#### **SPECIFIC OUTCOME 3**

Describe the safety, health and environmental principles with regards to working platforms, ladders, scaffolds and walkways in elevated positions.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

Demonstrate knowledge of fans, fan measurements and performance

SAQA US ID	UNIT STANDARD TITLE		
120322	Demonstrate knowledge of fans, fan measurements and performance		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	5	Level 4	(Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge of fan laws.

#### **SPECIFIC OUTCOME 2**

Describe the specified requirements pertaining to a fan characteristic curve.

#### **SPECIFIC OUTCOME 3**

Demonstrats knowledge of fan performance calculations, curves and graph plotting.

#### **SPECIFIC OUTCOME 4**

Determine fan characteristic curve and operating point.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Assess the performance of a heat exchanger and take appropriate action**

SAQA US ID	UNIT STANDARD TITLE		
120326	Assess the performance of a heat exchanger and take appropriate action		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	3	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Describe the principles of and operation of a heat exchanger.

#### **SPECIFIC OUTCOME 2**

Plan to assess the performance of a heat exchanger

#### **SPECIFIC OUTCOME 3**

Assess a heat exchanger and recommend appropriate remedial action.

#### **SPECIFIC OUTCOME 4**

Report, make recommendations and deal with equipment.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

Conduct routine monitoring of a fan's performance and installation

SAQA US ID	UNIT STANDARD TITLE		
120334	Conduct routine monitoring of a fan's performance and installation		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Describe the-specified requirements pertaining to conducting routine monitoring of a fan's performance and its installation.

#### **SPECIFIC OUTCOME 2**

Prepare to conduct routine monitoring.

#### **SPECIFIC OUTCOME 3**

Conduct routine monitoring and recommend appropriate remedial action.

#### **SPECIFIC OUTCOME 4**

Evaluate, report and deal with equipment.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
120340	Determine a refrigeration plant duty with respect to water circuits and recommend appropriate remedial action		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	3	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Explain the fundamental principles of the installation and operation of a refrigeration plant.

#### **SPECIFIC OUTCOME 2**

Prepare to assess the performance of the water circuit of a refrigeration plant.

#### **SPECIFIC OUTCOME 3**

Assess the water circuit performance of a refrigeration plant.

#### **SPECIFIC OUTCOME 4**

Report, make recommendations and deal with equipment.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
120344	Demonstrate knowledge and understanding of relevant current occupational health and safety legislation		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
	Health Sciences & Social Sciences	Preventive Health	
BAND	LEVEL	UNIT STANDARD	
4	1	ul	

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge and understanding of the basic principles of the relevant legislation.

#### **SPECIFIC OUTCOME 2**

Explain the requirements for compliance as stipulated in the current legislation.

#### **SPECIFIC OUTCOME 3**

Determine the management controls required under legislation to achieve compliance.

#### **SPECIFIC OUTCOME 4**

Demonstrate knowledge and understanding of record keeping required by the legislation.

#### **SPECIFIC OUTCOME 5**

Explain the legal obligations of the employer in terms of training and communication.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
120359	Monitor, report and make recommendations on the specified requirements that applies to permit to work systems in a working		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regulatory	Health Sciences and Social Sciences	Occupational Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
		4	

#### **SPECIFIC OUTCOME 1**

Describe the requirements for the application of hot or cold work permit.

#### **SPECIFIC OUTCOME 2**

Describe the requirements to apply a lock-out system.

#### **SPECIFIC OUTCOME 3**

Describe the requirements to apply a confined space entry permit.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY



**UNIT STANDARD:**

Analyse a mixture of coal dust and stone dust sample by means of colorimetric method and recommend appropriate remedial action

120323	Analyse a mixture of coal dust and stone dust sample by means of colorimetric method and recommend appropriate remedial action		
<b>SGB NAME</b>		<b>ORGANISING FIELD ID</b>	<b>PRO ER I ME</b>
SGB Occupational Health and Safety		9	
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	2	2	Regular

**SPECIFIC OUTCOME 1**

Describe the specified requirements pertaining to the analysing of samples.

**SPECIFIC OUTCOME 2**

Prepare to analyse samples.

**SPECIFIC OUTCOME 3**

Analyse samples.

**SPECIFIC OUTCOME 4**

Perform post-analysis activities.





## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:**

<b>SAQUS ID</b>	<b>UNIT STANDARD TITLE</b>		
120318	Determine the long-lived alpha activity on a dust-laden filter with an alpha counter		
<b>SGB NAME</b>	<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>	
SGB Occupational Health and Safety	9		
<b>UNIT STANDARD TYPE</b>	<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>	
Regular	Health Sciences and Social Services	Preventive Health	
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	2	Level 3	Regular

**SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to determining long-lived alpha activity.

**SPECIFIC OUTCOME 2**

Prepare to determine.

**SPECIFIC OUTCOME 3**

Determine long-lived alpha activity.

**SPECIFIC OUTCOME 4**

Perform post-determination activities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120351	Collect and prepare water sample for radionuclide analysis		
<b>SGB NAME</b>		<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>
SGB Occupational Health and Safety		9	
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARDTYPE</b>
Undefined	3	Level 3	Regular

**SPECIFIC OUTCOME 1**

Demonstrate knowledge of the specified requirements pertaining to collecting and preparing water samples for radionuclide analysis.

**SPECIFIC OUTCOME 2**

Prepare to collect water samples.

**SPECIFIC OUTCOME 3**

Collect and prepare water samples.

**SPECIFIC OUTCOME 4**

Perform post-sampling activities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:****Measure radioactive contamination by means of a surface contamination monitor**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120346	Measure radioactive contamination by means of a surface contamination monitor		
<b>SGB Occupational Health and Safety</b>			
<b>9</b>			
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	2	Level 4	Regular

**SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to determining radioactive surface contamination.

**SPECIFIC OUTCOME 2**

Prepare to measure radioactive surface contamination.

**SPECIFIC OUTCOME 3**

Measure radioactive surface contamination.

**SPECIFIC OUTCOME 4**

Perform post-measuring activities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

#### Measure low-level gamma radiation by means of a portable dosimeter

SAQA US ID	UNIT STANDARD TITLE		
120356	Measure low-level gamma radiation by means of a portable dosimeter		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	2	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to measurement of low-level gamma radiation dose rates.

#### **SPECIFIC OUTCOME 2**

Prepare to measure the low-level gamma radiation dose.

#### **SPECIFIC OUTCOME 3**

Measure low-level gamma radiation dose rates.

#### **SPECIFIC OUTCOME 4**

Perform post-measuring activities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### QUALIFICATION:

#### *Further Education and Training: Occupational Hygiene and Safety*

SAQA QUAL ID	QUALIFICATION TITLE		
50063	Further Education and Training: Occupational Hygiene and Safety		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
QUAL TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD	
Further Ed and Training Cert	Health Sciences and Social Services	Preventive Health	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
Undefined	145	Level 4	Regular-Unit Stds Based

#### **PURPOSE AND RATIONALE OF THE QUALIFICATION**

Learners accredited with this qualification will be able to identify, evaluate, advise and report on occupational hygiene and safety factors, in occupational environments, in order to maintain a high level of health and safety for workers in such environments.

Learners credited with this qualification are capable of:

- > Communicating effectively in a variety of ways.
- > Using mathematics to solve problems in real life and work-related situations.
- > Identifying problems and initiating actions regarding workplace hazards and risks.
- > Working effectively with others as a member of a team, group, organisation or community to attain operational competence in occupational safety and hygiene.

Rationale:

Learners credited with this qualification are likely to be **working** in the occupational safety, hygiene and environmental disciplines. Learners are required to integrate practical skills with essential knowledge, to be able to take proactive and reactive measures in order to maintain a healthy and safe environment.

In South Africa and internationally, the social and economic impact of occupational safety, hygiene and health, is significant. Direct costs that result from poor workplace safety, hygiene and health, include human and economic costs. Indirect costs are also incurred and may include poor morale, poor productivity and downtime. Improved workplace safety, hygiene and health, could influence the South African economy in direct costs alone to the value of millions of Rands each year. This qualification aims to meet the demand for learners that are able to facilitate a safe, healthy and productive occupational environment.

There is a critical need in the industry to recognise learner competence regarding essential operations associated with a healthy, safe and productive working environment. This qualification is the next step in a career path in one of the areas of specialisation in Occupational Safety and Hygiene and is generic enough to allow maximum mobility within the field of application.

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

N

#### **LEARNING ASSUMED TO BE IN PLACE**

Learners embarking on learning for this qualification should **be** competent in the following:

- > Communication at NQF Level 3.

> Mathematical literacy at NQF Level 3.

Recognition of prior learning:

This qualification can be achieved wholly, or in part, through recognition of prior learning. Evidence of competency can be presented in a variety of forms, including previous international or local qualifications, reports, testimonials, mentoring, functions performed, portfolios, work records and performance records. Learners who have met the requirements of any unit standard that forms part of this qualification may apply for recognition of prior learning to the relevant Education and Training Quality Assurance body (ETQA) or ETQA which has a Memorandum of Understanding in place with the relevant ETQA.

### **QUALIFICATION RULES**

All **56** Fundamental component credits are compulsory:

- > 20 credits for Communication - first language - at NQF Level 4
- > **16** credits for Mathematical Literacy at NQF Level 4
- > 20 credits for Communication - second language - which may be at NQF Level 3

All **75** Core component credits are compulsory.

At least 14 of the Elective component credits must be attained.

### **EXIT LEVEL OUTCOMES**

1. Communicate effectively in a variety of ways.
- 2. Use** mathematics to solve problems in real life and work-related situations.
3. Identify problems and initiate corrective actions regarding workplace hazards and risks.
4. Work effectively with others as a member of a team, group, organisation or community to attain operational competence in occupational safety and hygiene.

Critical cross-field outcomes:

This qualification addresses the following critical cross-field outcomes, as detailed in the associated unit standards:

- > Identifying and solving problems in which responses indicate that responsible decisions using critical and creative thinking have been made.
  - > This critical cross-field outcome is addressed primarily through ELO1 and ELO4.
- > Working effectively with others **as** a member of a team, group, organisation or community.
  - > This critical cross-field outcome is addressed primarily through ELO4.
- > Organising and managing oneself and one's activities responsibly and effectively.
  - > This critical cross-field outcome is addressed primarily through ELO1, and ELO4.
- > Collecting, analysing, organising and critically evaluating information.
  - > This critical cross-field outcome is addressed primarily through ELO2, EL03 and ELO4.
- > Communicating ~~effectively using visual, mathematical and/or language skills in the modes of oral/written persuasion.~~
  - > This critical cross-field outcome is addressed primarily through ELO1.
- > Using science and technology effectively and critically, showing responsibility towards the environment and health of others.
  - > This critical cross-field outcome is addressed primarily through ELO2, EL03 and ELO4.
- > Demonstrating an understanding of **the** world as a set of related systems by recognising that problem-solving contexts **do** not exist in isolation.
  - > This critical cross-field outcome is addressed primarily through ELO1, ELO2, EL03 and ELO4.

Learning programmes directed towards **this** qualification will also contribute to the full personal

development of each learner and the social and economic development of the society at large, by making individuals aware of the importance of:

- > Reflecting on and exploring a variety of strategies to learn more effectively.
- > Participating as responsible citizens in the life of local, national and global communities.
- > Being culturally and aesthetically sensitive across a range of social contexts.
- > Exploring education and career opportunities; and developing entrepreneurial opportunities.

#### **ASSOCIATED ASSESSMENT CRITERIA**

1.

- > Engage in sustained oral communication and evaluate spoken text.
- > Read, analyse and respond to a variety of texts.
- > Write for a wide range of contexts.
- > Use language and communication in occupational learning programmes.

2.

- > Mathematics is used to gather and monitor the information generated through workplace procedures.
- > Knowledge of statistics is used to effectively communicate findings in life-related problems.
- > Physical quantities are measured, estimated and calculated and possible problems anticipated and resolved according to workplace procedures.

3.

- > Workplace hazards and risks are identified and addressed according to specified procedures and requirements.
- > Workplace hazards and risks are recorded, dealt with and reported according to specified procedures.
- > Personal protective and monitoring equipment is used as specified.

4.

- > Principles of hygiene, safety and environmental management are applied to ensure a safe working environment.
- > Inspecting, monitoring and reporting are carried out regularly and accurately and meet the specified requirements.
- > Work is carried out harmoniously and conflict situations are handled according to prescribed workplace procedures.

Integrated Assessment:

Integrated assessment is carried out as a series of structured, evidence gathering processes throughout the period of learning. The learner's performance is assessed through the use of a range of methods and culminates in a final or summative assessment. Methods include, but are not limited to:

- > Written and oral tests.
- > Simulation.
- > Peer group presentations.
- > Written reports and work plans.

#### **INTERNATIONAL COMPARABILITY**

A search was done to compare this qualification and its associated unit standards with those of other countries. After an extensive search it became clear that Occupational Health and Safety training in the SADC region is almost non-existent as is evident from a Southern African Meeting on The Education and Training of Occupational Health and Safety Professionals, Johannesburg, South Africa, **22-24 October 1997**. (Source: <http://www.asosh.org/SADC/training.htm> accessed 5 June 2005).

A follow-up meeting held in Zimbabwe in March 2001 identified the following areas of collaboration:

- > Human resource development, focused on capacity building.
- > National policies, programmes and legislation.
- > Information, research and awareness raising.
- > Promotion of occupational health and safety in particularly hazardous occupations, vulnerable groups (including informal sector workers and children) and in newly transferred technologies (Source: <http://www.who.int/occupational-health/regions/en/oehafroharare.pdf> accessed 10 June 2005).

A search could not pick up any information on any later developments in the OHS sector in the region taking

place after the quoted conferences.

A network of occupational health institutes assigned as WHO collaborating centers published a "global strategy for occupational health for all" in 1995 with **10** priority objectives, later adopted by the World Health Assembly. The most notable of these objectives for the purposes of this is:

"Development of human resources for occupational health:

> **There** is a universal shortage of both expert resources and training in developing and newly industrialized countries in the South. This is due to three main reasons:

> Lack of effective legislation and **lack** of requests from authorities and employers make the employment opportunities for such experts minimal.

> In the absence of requests, the vocational training institutions and universities have not organized and developed curricula for the training of experts in occupational health.

> In some instances, where training is available, it is oriented to clinical occupational medicine only which, though important, does not give a full response to the needs for expertise in a preventive workplace-oriented occupational health service."

(Source: Occupational Safety and Health in Developing Countries, Review of strategies, case studies and a bibliography, Christer Hogstedt and Bodhi Pieris <http://www.niwl.se/arb/> accessed 12 June 2005)

It must be remembered that the WHO sees occupational safety as part of occupational health. From the case studies in the report it also becomes apparent that no formal educational structure or learning on occupational health and safety (OHS) exists in countries like Thailand, Malaysia, South East Asia, Central America, India, Zimbabwe and Costa Rica.

A conclusion can thus be drawn that South Africa is a leader in developing occupational health and safety qualifications in developing countries and can in this instance be compared to developed countries that have established a qualifications framework in a national as well as functional context. Such countries are most notably Australia, New Zealand and the United Kingdom.

South Africa has also taken the lead in dissemination of OHS knowledge and expertise through International conferences and seminars like **NOSHCON**, taking place annually in South Africa.

Our mining community has taken the lead in implementing ~~legislation~~ that ~~would improve~~ the education and training levels of all workers not only in general but in OHS specifically through the activities of the Mining Qualifications Authority (**MQA**). Most major mine houses are already implementing training programmes based on qualifications and unit standards developed by the MQA.

□

Although qualifications on frameworks in New Zealand, United Kingdom, and Australia, do not mirror our qualification design, the design of the qualification addresses equivalent areas of competence.

□

On the Australian framework, occupational health, safety and environment qualifications fall within the Vocational Education and Training sector, which recognises skills and knowledge that meet nationally endorsed **industry/enterprise** competency standards as agreed for those qualifications by the relevant industry, enterprise, community or professional group. The available qualifications also include literacy and numeracy, communication, working in teams (critical cross field outcome on the South African NQF), workplace technology, and industry specific competencies. Various programmes are available, including a Certificate **III** in Occupational Health and Safety, Certificate **IV** in Auditing Occupational Health and Safety Systems, Certificate **IV** in Occupational Health and Safety, and a Diploma of Occupational Health and Safety. Certificate **III** (equivalent to grade 12, South African NQF Level **4**).

□

In the United Kingdom, an equivalent for the South African NQF Level **4** qualification does exist. A National Vocational Qualification Occupational Health and Safety at Level **3** (Grade **12** or NQF Level **4** equivalent in South Africa), is available. Other than these, health, safety and environmental issues are integrated within most other relevant qualifications, such as general science (equivalent to NQF Level **1** in South Africa), design, and engineering. In Scotland, ~~two~~ Vocational qualifications are provided, namely, Occupational Health and Safety Practice at Level **3**, and Occupational Health and Safety Practice at Level **4**.

□

The New Zealand NQF places occupational health and safety within the fields of Health, Manufacturing (Dairy Workplace Health and Safety) and Planning and Construction (Construction Health and Safety and Injury Prevention). The South African equivalent is in the field of Health, specifically Occupational Health and Safety. The South African NQF Level **4** is the equivalent of the New Zealand NQF Level **3**. Two qualifications are registered in the **field** of Health, on the New Zealand NQF, namely, a National Certificate in Occupational Health and Safety (Co-ordination) (Level **4**), and a National Certificate in Occupational



Health and Safety (Workplace Safety) (Level 3).

Unit standards on the New Zealand NQF mostly start at the equivalent of our level four qualification, and include, but is not restricted to, the following:

Title, level and credits:

□□□

- > Protect health and safety in a workplace. Level: 1. Credits: 1.
- > Apply safe work practices in the workplace. Level: 2. Credits: 4.
- > Undertake job safety analysis. Level: 2. Credits: 4.
- > Apply for, accept, and carry out work according to a work permit in the workplace. Level: 3. Credits: 4.
- > Apply hazard identification and risk assessment procedures in the workplace. Level: 3. Credits: 4.
- > Demonstrate knowledge of electrical safety in the workplace. Level: 3. Credits: 5.
- > Demonstrate knowledge of fire and emergency warden duties in the workplace. Level: 3. Credits: 3.
- > Demonstrate knowledge of hazards associated with confined space. Level: 3. Credits: 4.
- > Demonstrate knowledge of hearing conservation in the workplace. Level: 3. Credits: 4.
- > Explain safe work practices for working at heights. Level: 3. Credits: 3.
- > Identify the causes of back injury and methods to prevent back injuries in the workplace. Level: 3. Credits: 4.
- > Demonstrate knowledge of safety observer responsibilities in the workplace. Level: 3. Credits: 8.
- > Issue work site specific work permits. Level: 3. Credits: 6.
- > Use a forklift mounted safety platform in the workplace. Level: 3. Credits: 5.
- > Implement workplace health and safety management requirements. Level: 4. Credits: 25.
- > Assist in evaluating occupational health and safety standards and practice. Level: 4. Credits: 15.
- > Assist in hazard identification and control for occupational health and safety practice. Level: 4. Credits: 10.
- > Demonstrate knowledge of health and safety management requirements for contractors working on site. Level: 4. Credits: 8.
- > Explain the establishment and operation of a workplace health and safety committee. Level: 4. Credits: 5.
- > Explain the requirements of the health and safety in employment act (HSE) 1992. Level: 4. Credits: 2.
- > Maintain standards of practice in an occupational health and safety practice. Level: 5. Credits: 5.
- > Develop and implement workplace occupational health and safety policy and standards. Level: 5. Credits: 10.
- > Manage workplace management health and safety. Level: 5. Credits: 10.

### **ARTICULATION OPTIONS**

This qualification can provide access to higher-level qualifications in the discipline of Occupational Hygiene and Safety, and in various industrial sectors and related sub-fields as most qualifications on the NQF require competence regarding this discipline. Thus, an access point is provided to, for example, qualifications in the Physical Planning and Construction, Manufacturing, Engineering and Technology and Business, Commerce and Management organising fields.

□

The qualification articulates horizontally with all NQF 4 registered qualifications and vertically with NQF Levels 3 and 5 qualifications.

### **MODERATION OPTIONS**

- > Any provider offering learning that will enable the achievement of this qualification must be accredited as a provider by the relevant ETQA or an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- > Moderation of assessment will be overseen by the relevant ETQA or ETQA that has a Memorandum of Understanding with the relevant ETQA.

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

Assessors are required to:

- > Be registered as assessors with the relevant ETQA or an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- > Be in possession of a relevant qualification at least at NQF level 5.
- > Have at least five years experience in the OHS sector.

### **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	<b>120341</b> Conduct a Task Analysis and take appropriate action to address identified risks	Level 4	4	Draft - Prep for P Comment
core	<b>120342</b> Prepare, implement and co-ordinate a personal gravimetric sampling programme and determine exposure risk	Level 4	4	Draft - Prep for P Comment
core	<b>120345</b> Conduct an indoor air quality investigation and recommend appropriate remedial action	Level 4	5	Draft - Prep for P Comment
Core	<b>120347</b> Measure characteristics of a noise source using an octave band frequency analyser and recommend appropriate remedial action	Level 4	3	Draft - Prep for P Comment
core	<b>120348</b> Demonstrate knowledge and understanding of basic toxicological principles	Level 4	3	Draft - Prep for P Comment
core	<b>120349</b> Monitor and make recommendations on the application of health and safety principles regarding lifting equipment in the working place	Level 4	4	Draft - Prep for P Comment
Core	<b>120352</b> Demonstrate knowledge and understanding of human anatomy, physiology and pathology	Level 4	3	Draft - Prep for P Comment
core	<b>120354</b> Monitor and make recommendations on the application of health and safety principles regarding pressure vessels and pressure systems in the working place	Level 4	4	Draft - Prep for P Comment
Core	<b>120355</b> Demonstrate knowledge of airflow calculations and principles of airflow in a ventilation circuit	Level 4	2	Draft - Prep for P Comment
Core	<b>120357</b> Demonstrate knowledge of refrigeration principles and perform relevant calculations	Level 4	6	Draft - Prep for P Comment
core	<b>120364</b> Measure hazardous biological agents and recommend appropriate remedial action	Level 4	5	Draft - Prep for P Comment
core	<b>120365</b> Evaluate extraction systems for efficiency and effectiveness	Level 4	3	Draft - Prep for P Comment
core	<b>120366</b> Demonstrate understanding of the implementation of occupational health, safety and environmental legislation in the work place	Level 4	9	Draft - Prep for P Comment
core	<b>120368</b> Determine a fan characteristic curve, actual operating point and take appropriate action	Level 4	4	Draft - Prep for P Comment
core	<b>120369</b> Evaluate glare and recommend appropriate remedial action	Level 4	3	Draft - Prep for P Comment
core	<b>120370</b> Monitor and make recommendations on the application of health and safety principles regarding hazardous substances in the working place	Level 4	3	Draft - Prep for P Comment
core	<b>120353</b> Demonstrate knowledge of fan operating points for different configurations and influencing factors	Level 5	4	Draft - Prep for P Comment
core	<b>120361</b> Monitor and make recommendations on the application of health and safety principles regarding the prevention of fires and protection systems in a working place	Level 5	6	Draft - Prep for P Comment
Elective	<b>9533</b> Use communication skills to handle and resolve conflict in the workplace	Level 3	3	Reregistered
Elective	<b>13917</b> Indicate the role of a team leader ensuring that a team meets an organisation's standards	Level 3	6	Registered
Elective	<b>117877</b> Perform one-to-one training on the job	Level 3	4	Registered
Elective	<b>14015</b> Collect and interpret data	Level 4	4	Registered
Elective	<b>120343</b> Determine radon and thoron progeny concentrations using the Ogden method	Level 4	4	Draft - Prep for P Comment
Elective	<b>120350</b> Determine the integrated beta/gamma radiation dose using a Thermoluminescent Dosimeter (TLD)	Level 4	2	Draft - Prep for P Comment
Elective	<b>120358</b> Determine the integrated radon gas dose	Level 4	3	Draft - Prep for P Comment
Elective	<b>120363</b> Demonstrate knowledge pertaining to uncontrolled explosions	Level 4	4	Draft - Prep for P Comment
Elective	<b>120367</b> Measure radon progeny using the batch method	Level 4	4	Draft - Prep for P Comment
Fundamental	<b>8968</b> Accommodate audience and context needs in oral communication	Level 3	5	Reregistered
Fundamental	<b>8969</b> Interpret and use information from texts	Level 3	5	Reregistered
Fundamental	<b>8970</b> Write texts for a range of communicative contexts	Level 3	5	Reregistered
Fundamental	<b>8973</b> Use language and communication in occupational learning programmes	Level 3	5	Reregistered
Fundamental	<b>7468</b> Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 4	6	Reregistered
Fundamental	<b>8974</b> Engage in sustained oral communication and evaluate spoken texts	Level 4	5	Reregistered

Fundamental	8975	Read analyse and respond to a variety of text5	Level 4	5	Reregistered
Fundamental	8976	Write for a wide range of contexts	Level 4	5	Reregistered
Fundamental	8979	Use language and communication in occupational learning programmes	Level 4	5	Reregistered
Fundamental	9015	Apply knowledge of <b>statistics</b> and probability to <b>Critically interrogate</b> and effectively communicate findings on <b>1</b> ie related problem	Level 4	6	Reregistered
Fundamental	9016	Represent analyse and calculate shape and motion in 2-and <b>3-dimensional space</b> in different contexts	Level 4	<b>4</b>	Reregistered



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Conduct a Task Analysis and take appropriate action to address identified risks**

SAQA US ID	UNIT STANDARD TITLE		
120341	Conduct a Task Analysis and take appropriate action to address identified risks		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 4	Regular

**SPECIFIC OUTCOME 1**

Explain what a **task analysis** is.

**SPECIFIC OUTCOME 2**

Conduct a task analysis.

**SPECIFIC OUTCOME 3**

Take appropriate action to **address identified risks**.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120342	Prepare, implement and co-ordinate a personal gravimetric sampling programme and determine exposure risk		
<b>SGB NAME</b>	<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>	
SGB Occupational Health and Safety	9		
<b>UNIT STANDARD TYPE</b>	<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>	
Regular	Health Sciences and Social Services	Preventive Health	
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	4	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to a personal gravimetric sampling programme.

#### **SPECIFIC OUTCOME 2**

Prepare programme.

#### **SPECIFIC OUTCOME 3**

implement and co-ordinate programme.

#### **SPECIFIC OUTCOME 4**

Determine and report dust exposure risk.



<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120345	Conduct an indoor air quality investigation and recommend appropriate remedial action		
<b>SGB NAME</b>		<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>
SGB Occupational Health and Safety		9	
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	5	Level 4	Regular

**SPECIFIC OUTCOME 1**

Demonstrate knowledge pertaining to an indoor air quality investigation.

**SPECIFIC OUTCOME 2**

Prepare to conduct an indoor air quality investigation.

**SPECIFIC OUTCOME 3**

Conduct an indoor air quality investigation.

**SPECIFIC OUTCOME 4**

Perform post-measuring activities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**UNIT STANDARD:**

**Measure characteristics of a noise source using an octave band frequency analyser and recommend appropriate remedial action**

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120347	Measure characteristics of a noise source using an octave band frequency analyser and recommend appropriate remedial action		
<b>SGB NAME</b>		<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>
SGB Occupational Health and Safety		9	
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	3	Level 4	Regular

**SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to measurement of the characteristics of a noise source.

**SPECIFIC OUTCOME 2**

Prepare to measure.

**SPECIFIC OUTCOME 3**

Quantify noise characteristics.

**SPECIFIC OUTCOME 4**

Analyse, report and take appropriate action.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
120348	Demonstrate knowledge and understanding of basic toxicological principles		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	13	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate basic knowledge pertaining to toxicology contained in specified requirements.

#### **SPECIFIC OUTCOME 2**

Demonstrate knowledge and understanding of the routes of entry of toxic substances into the human body and their absorption.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge and understanding of the metabolism of toxic substances.

#### **SPECIFIC OUTCOME 4**

Demonstrate knowledge of the influences of various toxic substances on the human body.





## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Monitor and make recommendations on the application of health and safety principles regarding lifting equipment in the working place**

SAQA US ID	UNIT STANDARD TITLE		
120349	Monitor and make recommendations on the application of health and safety principles regarding lifting equipment in the working place		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Report 2nd advise on the maintenance and safe handling of lifting equipment in a work place in accordance with specified requirements.

#### **SPECIFIC OUTCOME 2**

Describe the specified requirements pertaining to the construction, safe working loads and application of lifting equipment in a work place.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge pertaining to the examination and records of lifting equipment in a work place.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Demonstrate knowledge and understanding of human anatomy, physiology and pathology**

SAQA US ID	UNIT STANDARD TITLE		
120352	Demonstrate knowledge and understanding of human anatomy, physiology and pathology		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	3	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge and basic understanding of human anatomy. --

#### **SPECIFIC OUTCOME 2**

Demonstrate knowledge and basic understanding of physiology.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge and basic understanding of pathology.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Monitor and make recommendations on the application of health and safety principles regarding pressure vessels and pressure systems in the working place**

SAQA US ID	UNIT STANDARD TITLE		
120354	Monitor and make recommendations on the application of health and safety principles regarding pressure vessels and pressure systems in the working place		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Monitor and advise on the specified requirements pertaining to the classification, safe use of pressure vessels and pressure systems in a work place.

#### **SPECIFIC OUTCOME 2**

Demonstrate knowledge pertaining to design criteria and construction, installation and testing of pressure vessels and systems in a work place.

#### **SPECIFIC OUTCOME 3**

Monitor and advise on the maintenance, examination and records of pressure vessels and systems in a work place.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Demonstrate knowledge of airflow calculations and principles of airflow in a ventilation circuit**

SAQA US ID	UNIT STANDARD TITLE		
120355	Demonstrate knowledge of airflow calculations and principles of airflow in a ventilation circuit		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	1	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge of the basic principles of airflow in a ventilation circuit.

#### **SPECIFIC OUTCOME 2**

Assess the functionality of instruments used for airflow determination to ensure safety, health and productivity.

#### **SPECIFIC OUTCOME 3**

Determine airflow rates and circuit pressures using appropriate instruments.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

#### Demonstrate knowledge of refrigeration principles and perform relevant calculations

SAQA US ID	UNIT STANDARD TITLE		
120357	Demonstrate knowledge of refrigeration principles and perform relevant calculations		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	6	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge of the principles of a refrigeration system.

#### **SPECIFIC OUTCOME 2**

Demonstrate understanding of insulation and fouling.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge of calculations relating to refrigeration.

#### **SPECIFIC OUTCOME 4**

Evaluate and report data.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

#### Measure hazardous biological agents and recommend appropriate remedial action

<b>SAQA US ID /UNIT STANDARD TITLE</b>			
120364	Measure hazardous biological agents and recommend appropriate remedial action		
<b>SGB NAME</b>		<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>
SGB Occupational Health and (Safety)		9	
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	5	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Describe the basic principles and specified requirements pertaining to hazardous biological agents.

#### **SPECIFIC OUTCOME 2**

Prepare to measure hazardous biological agents.

#### **SPECIFIC OUTCOME 3**

Test for hazardous biological agents.

#### **SPECIFIC OUTCOME 4**

Report and recommend appropriately and deal with equipment.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

#### Evaluate extraction systems for efficiency and effectiveness

SAQA US ID	UNIT STANDARD TITLE		
120365	Evaluate extraction systems for efficiency and effectiveness		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	3	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge pertaining to the evaluation of extraction systems.

#### **SPECIFIC OUTCOME 2**

Plan to measure performance of the extraction system.

#### **SPECIFIC OUTCOME 3**

Record data and assess performance of an extraction system.

#### **SPECIFIC OUTCOME 4**

Analyse, report, recommend appropriately and deal with instrumentation.



<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120366	Demonstrate understanding of the implementation of occupational health, safety and environmental legislation in the work place		
<b>SGB NAME</b>		<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>
SGB Occupational Health and Safety		9	
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	9	Level 4	Regular

**SPECIFIC OUTCOME 1**

Explain the framework of health, safety and environmental legislation at the workplace.

**SPECIFIC OUTCOME 2**

Explain the requirements of health, safety and environmental policies, procedures and codes of practice.

**SPECIFIC OUTCOME 3**

Explain the implementation and maintenance of health, safety and environmental legislation in a workplace.





## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Determine a fan characteristic curve, actual operating point and take appropriate action**

SAQA US ID	UNIT STANDARD TITLE		
120368	Determine a fan characteristic curve, actual operating point and take appropriate action		
SGB NAME	(ORGANISING FIELD ID)	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET EAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 4	Regular

**SPECIFIC OUTCOME. 1**

Describe the specified requirements pertaining to a fan characteristic curve.

**SPECIFIC OUTCOME 2**

Plan to determine the fan characteristic curve.

**SPECIFIC OUTCOME 3**

Establish fan characteristic curve and actual operating point.

**SPECIFIC OUTCOME 4**

Evaluate, analyse and report on data and deal with equipment.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
120369	Evaluate glare and recommend appropriate remedial action		
SGB NAME	(ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	3	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge of the basic principles pertaining to glare.

#### **SPECIFIC OUTCOME 2**

Prepare to determine glare,

#### **SPECIFIC OUTCOME 3**

Determine glare.

#### **SPECIFIC OUTCOME 4**

Perform post-measurement activities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

<b>SAQA US ID</b>	<b>UNIT STANDARD TITLE</b>		
120370	Monitor and make recommendations on the application of health and safety principles regarding hazardous substances in the working place		
<b>SGB NAME</b>		<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>
SGB Occupational Health and Safety		9	
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	11	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Monitor, advise and report on the scope and understanding of the specified requirements as regards to hazardous substances in a work place.

#### **SPECIFIC OUTCOME 2**

Demonstrate knowledge pertaining to the application of methods in preventing exposure to hazardous substances in a work place.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge pertaining to the classification, physical state, health effects and disposal methods of hazardous substances in a workplace.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

Demonstrate knowledge of fan operating points for different configurations and influencing factors \*\*

SAQA US ID	UNIT STANDARD TITLE		
120353	Demonstrate knowledge of fan operating points for different configurations and influencing factors		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 5	Regular

#### **SPECIFIC OUTCOME 1**

Describe the specified requirements pertaining to a fan characteristic curve.

#### **SPECIFIC OUTCOME 2**

Demonstrate knowledge and perform calculations pertaining to different fan configurations.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge and perform calculations pertaining to influencing factors.

#### **SPECIFIC OUTCOME 4**

Perform calculations to determine the effect of fitting an evasee.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Monitor and make recommendations on the application of health and safety principles regarding the prevention of fires and protection systems in a working place**

SAQA US ID	UNIT STANDARD TITLE		
120361	Monitor and make recommendations on the application of health and safety principles regarding the prevention of fires and protection systems in a working place		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	6	Level 5	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge pertaining to the definition of fire, principles and chemistry of combustion.

#### **SPECIFIC OUTCOME 2**

Demonstrate knowledge pertaining to the main causes of fire, fire spread and the principles of heat transmission.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge pertaining to the effects of fire and the different methods of fire spread control in the workplace.

#### **SPECIFIC OUTCOME 4**

Demonstrate knowledge pertaining to the classification of fires, the appliances to control fires and methods of detection.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

#### Determine radon 2nd thoron progeny concentrations using the Ogden method

SAQA US ID		UNIT STANDARD TITLE	
120343		Determine radon and thoron progeny concentrations using the Ogden method	
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Occupational Health and Safety		9	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Health Sciences and Social Services	Preventive Health
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to determining radon and thoron progeny concentrations.

#### **SPECIFIC OUTCOME 2**

Prepare to measure.

#### **SPECIFIC OUTCOME 3**

Determine radon and thoron progeny concentrations.

#### **SPECIFIC OUTCOME 4**

Perform post-determination activities.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

**Determine the integrated beta/gamma radiation dose using a Thermoluminescent Dosimeter (TLD)**

SAQA US ID	UNIT STANDARD TITLE		
120350	Determine the integrated beta/gamma radiation dose using a Thermoluminescent Dosimeter (TLD)		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	2	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge of the specified requirements pertaining to the determination of the integrated beta/gamma radiation dose.

#### **SPECIFIC OUTCOME 2**

Plan to determine the integrated beta/gamma radiation dose.

#### **SPECIFIC OUTCOME 3**

Determine the integrated beta/gamma radiation dose.

#### **SPECIFIC OUTCOME 4**

Interpret the results and report thereon.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

<i>SAQA USID</i>	<i>UNIT STANDARD TITLE</i>		
120358	Determine the integrated radon gas dose		
<i>SGB NAME</i>		<i>ORGANISING FIELD ID</i>	<i>PROVIDER NAME</i>
SGB Occupational Health and Safety		9	
<i>UNIT STANDARD TYPE</i>		<i>ORGANISING FIELD DESCRIPTION</i>	<i>SUBFIELD DESCRIPTION</i>
Regular		Health Sciences and Social Services	Preveniive Health
<i>ABET BAND</i>	<i>CREDITS</i>	<i>NQF LEVEL</i>	<i>UNIT STANDARD TYPE</i>
Undefined	3	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge of the specified requirements pertaining to the determination of the integrated radon dose.

#### **SPECIFIC OUTCOME 2**

Plan to determine the integrated radon dose.

#### **SPECIFIC OUTCOME 3**

Determine the integrated radon dose.

#### **SPECIFIC OUTCOME 4**

Interpret the results and report thereon.





## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

<b>SAQA US ID</b>		<b>UNIT STANDARD TITLE</b>	
120363		Demonstrate knowledge pertaining to uncontrolled explosions	
<b>SGE NAME</b>		<b>ORGANISING FIELD ID</b>	<b>PROVIDER NAME</b>
SGB Occupational Health and Safety		9	
<b>UNIT STANDARD TYPE</b>		<b>ORGANISING FIELD DESCRIPTION</b>	<b>SUBFIELD DESCRIPTION</b>
Regular		Health Sciences and Social Services	Preventive Health
<b>ABET BAND</b>	<b>CREDITS</b>	<b>NQF LEVEL</b>	<b>UNIT STANDARD TYPE</b>
Undefined	4	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge pertaining to the fundamentals of explosions.

#### **SPECIFIC OUTCOME 2**

Demonstrate knowledge of the causes and prevention of explosions.

#### **SPECIFIC OUTCOME 3**

Demonstrate knowledge pertaining to the detection of potentially explosive atmospheres.

#### **SPECIFIC OUTCOME 4**

Discuss the various explosion control measures.



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

### UNIT STANDARD:

#### Measure radon progeny using the batch method

SAQA US ID	UNIT STANDARD TITLE		
120367	Measure radon progeny using the batch method		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Occupational Health and Safety	9		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Health Sciences and Social Services	Preventive Health	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 4	Regular

#### **SPECIFIC OUTCOME 1**

Explain the specified requirements pertaining to measuring radon progeny.

#### **SPECIFIC OUTCOME 2**

Prepare to measure radon progeny.

#### **SPECIFIC OUTCOME 3**

Measure radon progeny.

#### **SPECIFIC OUTCOME 4**

Analyse, report and deal with equipment.