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SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA US ID	UNIT STANDARD TITLE			
259609	Demonstrate an understanding of Occupational Hygiene			
ORIGINATOR				
SGB Occupational Health and Safety				
FIELD			SUBFIELD	
Field 09 - Health Sciences and Social Services			Preventive Health	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	NQF Level 02	9
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2015-07-01	2018-06-30	SAQA 10105/14
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2019-06-30		2022-06-30		

PURPOSE OF THE UNIT STANDARD

This unit standard is for persons who are entering employment and need to know the basics of Occupational Hygiene.

Learners credited with this unit standard are able to:

- Explain the concept of Occupational Hygiene in the working place.
- Describe recognised environmental factors which influence workplace conditions.
- Explain the maintenance of acceptable occupational hygiene conditions in the work place.
- Explain how to deal with abnormal occupational hygiene conditions in the work place.

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

- Communication at NQF Level 1.
- Mathematical Literacy at NQF Level 1.

Specific Outcomes and Assessment Criteria:

SPECIFIC OUTCOME 1

Explain the concept of Occupational Hygiene.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

The concept of Occupational Hygiene discipline is described according to accepted current

legislative standards.

ASSESSMENT CRITERION 2

Environmental factors affecting Occupational Hygiene are described in terms of their characteristics.

ASSESSMENT CRITERION 3

Sources of workplace contaminants are described with examples.

ASSESSMENT CRITERION 4

The effects of hazardous environmental conditions are explained in terms of the safety and health of workers.

SPECIFIC OUTCOME 2

Describe recognised environmental factors which influence the workplace.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

The four principal environmental factors that can affect well-being in the work place are described with examples.

ASSESSMENT CRITERION 2

The effects of non-chemical physical environmental factors on persons in the work place are described.

ASSESSMENT CRITERION RANGE

Heat, cold, vibration, noise, ventilation, illumination, ionising and non-ionising radiation.

ASSESSMENT CRITERION 3

The impact of chemical environmental factors on persons in the work place is explained and examples of chemical pollutants are given.

ASSESSMENT CRITERION RANGE

Dusts (particle size), gases include but are not limited to:

☑ Oxygen (O₂) and Carbon Monoxide (CO) and Carbon Dioxide (CO₂) and Oxides of Nitrogen (NO_x) and Methane (CH₄), vapours and fluids.

ASSESSMENT CRITERION 4

The influence of ergonomic environmental factors on the work place and on persons are explained with examples.

ASSESSMENT CRITERION RANGE

Work tolerance, fatigue, work/rest schedules.

ASSESSMENT CRITERION 5

Biological environmental factors are explained and their effect on persons and work places are described with examples.

ASSESSMENT CRITERION RANGE

Fungi, bacteria, algae and viruses.

SPECIFIC OUTCOME 3

Explain the control of factors influencing occupational hygiene conditions in the working place.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

Three different measuring techniques are described to evaluate and measure environmental factors which may affect the work place.

ASSESSMENT CRITERION RANGE

Personal, environmental and special monitoring.

ASSESSMENT CRITERION 2

The role of good house keeping in the maintenance of clean occupational hygiene conditions in the work place is explained in terms of the consequences to health and safety.

ASSESSMENT CRITERION 3

The importance of controlling and containing factors at source that may adversely influence occupational hygiene conditions is explained with the use of examples.

ASSESSMENT CRITERION 4

Predetermined rotation of workers and the provision of personal protective equipment are explained in terms of minimising worker exposure to hazards in the workplace.

ASSESSMENT CRITERION 5

The role of improving the work environment is explained in terms of reducing secondary stress.

ASSESSMENT CRITERION 6

The need to ventilate a work place is explained in terms of occupational hygiene.

SPECIFIC OUTCOME 4

Explain how to deal with abnormal occupational hygiene conditions in the working place.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

Dangers and hazards in the work place that could lead to an emergency situation are identified.

ASSESSMENT CRITERION 2

The action to be taken when environmental conditions do not conform to specified requirements is described in terms of a predetermined plan.

ASSESSMENT CRITERION 3

The appropriate escape strategy procedures during an emergency are explained and applicable safety officers are identified.

UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS

- ☒ Anyone assessing a learner or moderating the assessment of a learner against this unit standard must be registered as an assessor with the relevant Education, Training, Quality, Assurance (ETQA) Body, or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- ☒ Any institution offering learning that will enable the achievement of this unit standard must be accredited as a provider with the relevant Education, Training, Quality, Assurance (ETQA) Body, or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- ☒ Assessment and moderation of assessment will be overseen by the relevant Education, Training, Quality, Assurance (ETQA) Body, or with an ETQA that has a Memorandum of Understanding with the relevant ETQA, according to the ETQA's policies and guidelines for assessment and Moderation.
- ☒ Anyone wishing to be assessed against this unit standard may apply to be assessed by any assessment agency, assessor or provider institution that is accredited by the relevant ETQA.

UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE

The following embedded knowledge will be assessed in an integrated way in the context of the unit standard:

- ☒ Characteristics and occurrences of environmental factors.
- ☒ Types of detection and measurement methodologies for environmental factors.
- ☒ Limitations of various detection and measuring methodologies.
- ☒ Effects that specified environmental factors have on the health and safety of people.
- ☒ Importance of evaluating for environmental factors.
- ☒ Circumstances that necessitate evaluation of environmental factors.
- ☒ Use of instruments and accessories.
- ☒ Instruments' and their accessories' principle of operation, range, use and limitations.
- ☒ Importance of examining and calibrating instruments.
- ☒ Safe handling and use of specified instruments.
- ☒ Consequences for health, safety and productivity of dealing with defective and used equipment, continuously assessing health and safety hazards and risks, dangers of accessing sites without meeting access requirements, examining and correctly using personal protective equipment, testing for gas according to specified requirements, compliance with exposure levels, dealing with conditions, environmental factors, and limitations that can influence readings, evaluating test results and taking appropriate action.
- ☒ Occupational exposure limits and limits for temperatures.
- ☒ Action to be taken when temperatures are encountered outside legal exposure levels.
- ☒ Conditions, environmental factors, and limitations that can influence readings.

Critical Cross-field Outcomes (CCFO):

UNIT STANDARD CCFO IDENTIFYING

Solve problems:

- ☒ The ability of the candidate to identify anomalous conditions and deviations in environmental conditions in the working place and reporting contributes to his/her problem solving ability.

UNIT STANDARD CCFO WORKING

Work effectively with others as a member of team/group/organisation/community:

- ☑ The ability and willingness of the candidate to accept and interpret work instructions correctly and to delegate work instructions, in an appropriate manner, indicates that he/she can work effectively as a team member in the bigger organisational structure.

UNIT STANDARD CCFO ORGANISING

Organise and manage themselves and their activities responsibly and effectively:

- ☑ As part of the team the individual will take into account the activities around him/her and ensure that his/her actions are complementary.

UNIT STANDARD CCFO COLLECTING

Collect, organise and critically evaluate information:

- ☑ The ability of the learner to reconcile the information received from co-workers with actual facts will indicate proficiency in collecting, organising and critically evaluating information.

UNIT STANDARD CCFO COMMUNICATING

Communicate effectively using visual, mathematics and language skills in the modes of oral and written presentations:

- ☑ The understanding of measuring and monitoring strategies requires the individual to communicate effectively with other groups.

UNIT STANDARD CCFO SCIENCE

Use science and technology effectively and critically:

- ☑ The ability of the candidate to adhere to health, safety and environmental requirements and show responsibility to the environment and health of others illustrates his/her capability to use science and technology effectively.

UNIT STANDARD CCFO DEMONSTRATING

Demonstrate an understanding of the world as a set of related systems.

- ☑ The individual understands the impact of his participation in the overall objective.

UNIT STANDARD NOTES

Specified Requirements:

Specified requirements include legal and site-specific requirements and are contained in one or more of the following documents:

Legal:

- ☑ Relevant current legislation, regulations and directives pertaining to mining and occupational health and safety.

Site-Specific Requirements:

- ☑ Hazard Identification and Risk Assessments (HIRA).
- ☑ Occupational Health and Safety Risk Management Programme.
- ☑ Managerial Instructions.

- ☒ Mine Standard Procedures.
- ☒ List of Recorded OH and S Risks.
- ☒ Working Guides.
- ☒ Equipment and Materials Specifications.