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**SOUTH AFRICAN QUALIFICATIONS AUTHORITY
REGISTERED UNIT STANDARD:**

Use tools and operate equipment in an environmentally responsible manner

SAQA US ID	UNIT STANDARD TITLE			
119556	Use tools and operate equipment in an environmentally responsible manner			
ORIGINATOR				
SGB Environmental Sc/Mgt & Waste Mgt				
PRIMARY OR DELEGATED QUALITY ASSURANCE FUNCTIONARY				
-				
FIELD			SUBFIELD	
Field 10 - Physical, Mathematical, Computer and Life Sciences			Environmental Sciences	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	NQF Level 02	10
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2018-07-01	2023-06-30	SAQA 06120/18
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2024-06-30		2027-06-30		

In all of the tables in this document, both the pre-2009 NQF Level and the NQF Level is shown. In the text (purpose statements, qualification rules, etc), any references to NQF Levels are to the pre-2009 levels unless specifically stated otherwise.

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

PURPOSE OF THE UNIT STANDARD

In order for me to perform effectively in the field of environmental science, environmental management and waste management, I will be able to:

- Select the appropriate tools or equipment for the purpose.
- Use tools or operate equipment correctly to achieve the purpose.
- Care for and store the tools and equipment safely and responsibly.
- Carry out all activities related to the tools and equipment in accordance with good environmental practice.

I will also know and understand:

- Concepts and principles which underpin my activities and the use of the tools / operation of the equipment.

I can be assessed against this unit standard in the context of any activity which is related to managing environmental issues, such as:

- Waste management related activities, eg:
 - > Materials recovery and buy back centres.
 - > Waste reception.
 - > Landfill operations.
- Water course cleaning, care and maintenance.
- Care of public places, open areas, cultural and natural heritage sites.
- Maintenance of parks and sports fields.
- Involvement in community projects and job creation schemes relating to environmental practice.
- General industrial or extraction, ie activities with an environmental care or improvement focus.

The skill, the knowledge and the values reflected in this unit standard form part of the exit level outcomes required for the National Certificate in Environmental Practice NQF Level 2.

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

It is assumed that there is competent in Communication and Mathematical literacy skills at NQF Level 1.

UNIT STANDARD RANGE

The scope and level of this unit standard is indicated by range statements related to the Specific Outcomes.

Specific Outcomes and Assessment Criteria:

SPECIFIC OUTCOME 1

Select and use appropriate tools and equipment responsibly.

OUTCOME RANGE

Tools and equipment includes hand tools, mechanical machines, eg pneumatic compaction equipment, chain saws, bush cutters, static compaction equipment, weighing equipment, pumps, mixing equipment, shredding equipment, lifts, hoists, loaders, transport vehicles (inspection and basic maintenance only).

Responsibly: with due care for health, safety and the environment.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

The tools and equipment are selected appropriately for the purpose and with regard to their impact on the environment.

ASSESSMENT CRITERION RANGE

With regard to their impact on the environment: the potential and actual impacts on the environment of tools and equipment are anticipated or identified and appropriate choices are made.

ASSESSMENT CRITERION 2

Operations involving a range of tools and equipment are completed in accordance with correct operational procedures and in an environmentally responsible manner.

ASSESSMENT CRITERION RANGE

Correct operational procedures: learners who are not in formal employment would have to be assessed under simulated operational conditions.

Environmentally-responsible manner includes conserving resources, minimising waste, preventing soil loss, preventing wastage of water and energy, preventing pollution, preventing harm to wildlife, etc.

ASSESSMENT CRITERION 3

Operations are carried out efficiently and to safety, health, environmental and quality standards.

ASSESSMENT CRITERION RANGE

Standards include legal requirements, standard operating procedures and work instructions. Learners who are not in formal employment would have to be assessed under simulated operational conditions.

ASSESSMENT CRITERION 4

Tools and equipment are used safely and with due care for self, fellow workers, equipment, materials and the environment.

ASSESSMENT CRITERION RANGE

Used safely includes appropriate use of personal protective clothing and equipment for each tool and piece of equipment.

ASSESSMENT CRITERION 5

Questions about the selection and use of tools and equipment are responded to appropriately.

ASSESSMENT CRITERION RANGE

Questions would include potential and actual impact(s) of the tools and equipment on the environment, application of correct operational procedures, safety measures, etc.

ASSESSMENT CRITERION 6

Basic principles that underpin the structure and/or function of the tools or equipment are explained clearly.

ASSESSMENT CRITERION RANGE

This assessment criterion relates to having sufficient knowledge and understanding of such principles (mechanical, electrical, pneumatic, hydraulic, power, torque, etc) for the application of operational, maintenance and safety requirements, etc, to be meaningful to the learner.

Workplace requirements include operational, maintenance, storage and safety requirements, etc. Learners who are not in formal employment would meet an equivalent standard.

SPECIFIC OUTCOME 2

Inspect and prepare tools and equipment prior to use.

OUTCOME RANGE

Inspect includes checking for damage to the tool; checking the safety and condition of the tools and equipment; considering the environmental impact of the tools and equipment; checking pollution control measures (eg bafflers for noise reduction, scrubbers, sprinklers for dust suppression, filters); checking for leaks and emissions, etc.

Prepare tools may include installation of blades and bits, lubricating moving parts, minor adjustments, sharpening, unlocking.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

Inspection and preparation is performed accurately and according to worksite procedures.

ASSESSMENT CRITERION RANGE

According to worksite procedures: learners who are not in formal employment would have to be assessed under simulated operational conditions.

ASSESSMENT CRITERION 2

The consequences of not preparing tools and equipment correctly for use are explained correctly.

ASSESSMENT CRITERION 3

Unsafe or damaged tools and equipment, or tools and equipment which may impact adversely on the environment, are identified, reported and their use discontinued.

SPECIFIC OUTCOME 3

Maintain and store tools and equipment.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

Simple repairs, maintenance and care tasks are carried out according to worksite procedures and in an environmentally-responsible manner.

ASSESSMENT CRITERION RANGE

Worksite procedures: learners who are not in formal employment would have to be assessed under simulated operational conditions.

Environmentally-responsible manner includes correct disposal of old oil and parts; containing and cleaning up spillages; repairing and reporting leaks, etc.

ASSESSMENT CRITERION 2

Tools and equipment are stored in an environmentally-responsible manner and appropriately.

ASSESSMENT CRITERION RANGE

Where applicable, includes immobilisation of equipment and secondary containment.

ASSESSMENT CRITERION 3

Tools and equipment are kept securely and records maintained appropriately.

ASSESSMENT CRITERION RANGE

Includes following procedures for obtaining tools, equipment and consumables; accounting for consumables used.

ASSESSMENT CRITERION 4

Potential or actual breaches of security are identified and reported accurately.

UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS

To obtain credits I must be assessed. The assessment will be based on evidence that I produce. My assessment will be governed by the policies and guidelines of a relevant Education and Training Quality Assurance body (ETQA), which has jurisdiction over this field of learning. The policies and procedures of the relevant ETQA will also determine:

- How my assessment is moderated.
- How I can appeal against the outcome of the assessment.

Any institution or company which offers learning that will enable me to achieve the purpose of this unit standard must be accredited as a provider through the relevant ETQA.

My assessment against this standard should meet all the requirements of established principles. It should include practical assessment activities, which are appropriate to the contents of this unit standard. These activities should include an appropriate combination of self and peer assessment, practical and oral assessments, observations, etc.

I can be assessed in the language of my choice although if I have to report incidents or conditions to someone else, I will be assessed on my ability to report in the language commonly used in my working environment.

I will be assessed on all the Specific Outcomes, Critical Cross-Field Outcomes and essential embedded knowledge. The Specific Outcomes must be assessed in their own right, through oral and practical evidence. My assessment will not only be based on observation but also on other evidence which I compile into a portfolio of evidence. I cannot be assessed only through a written or oral test.

The Specific Outcomes and Essential Knowledge will be assessed in relation to each other. If I am able to explain the items which fall under the heading of essential embedded knowledge, but am unable to perform the Specific Outcomes, then I cannot be assessed as 'competent'. Similarly, if I am able to perform tasks described under the Specific Outcomes, but cannot explain or justify them in terms of the fundamental concepts, principles and practice relevant to the level of the unit standard that underpins my skill, then I cannot be assessed as 'competent'.

I will also be assessed on my ability to apply the principles and techniques related to the Critical Cross-Field Outcomes, not only in terms of what I can demonstrate, but also in terms of what I know and can discuss.

My assessment for this unit standard can be done in conjunction with the assessment of other unit standards related to a qualification, and even in conjunction with my assessment for the qualification as a whole.

UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE

The following items reflect the type of knowledge that the assessor will evaluate

1.Names & functions of:

- > tools and equipment
- > attachments (where applicable)
- > storage areas / facilities
- > services and consumables
- > personal protective equipment

2.Purpose of:

- > tools and equipment
- > caring for tools and equipment
- > operational procedures
- > health and safety procedures
- > signs and symbols related to safety
- > using personal protective clothing and equipment
- > caring for the environment

3.Attributes, descriptions, characteristics & properties:

- > tools and equipment
- > the functioning of the equipment
- > services / consumables
- > operating procedures
- > personal protective clothing and equipment

4.Processes and events:

- > selecting and wearing appropriate personal protective clothing and equipment
- > selecting and using the appropriate tools and equipment

5. Causes and effects, implications of:

- > selecting the incorrect tools or equipment for the purpose or the material
- > not following correct operational procedures
- > holding or using the tool or equipment incorrectly
- > incorrect preparation, handling, storage or maintenance
- > potential impact on the environment of tools or equipment
- > implications for the environment of misuse of tools or equipment
- > potential impact on the reputation of the enterprise of environmental practices

6. Procedures and techniques:

- > correct operational procedures
- > cleaning, inspection, preparation and storage of tools and equipment
- > maintenance of tools and equipment
- > emergency procedures
- > isolating and reporting damaged equipment
- > recording information related to use of tools and equipment

7. Sensory cues:

- > visual cues, smell, sound, taste and touch associated with incorrect settings, blunt blades, loose bolts, incorrect operation, etc.

8. Regulations, legislation, agreements, policies, standards:

- > sections applicable to safety, health and the environment
- > rights and responsibilities of the individual regarding the environment

9. Theory: rules, principles, laws:

- > related to the use or operation of the tools and equipment
- > basic understanding of leverage, force, pressure, torque
- > related to the environmental impact of specific actions or tools / equipment

10. Categories:

- > tools and equipment
- > services and consumables

11. Relationships, systems:

- > relationship between the nature of the tool or piece of equipment, the purpose for which it is used and the individual's responsibility and obligations to the environment and human health and safety

UNIT STANDARD DEVELOPMENTAL OUTCOME

N/A

UNIT STANDARD LINKAGES

N/A

Critical Cross-field Outcomes (CCFO):

UNIT STANDARD CCFO IDENTIFYING

Identify and solve problems

- > Use the tools and operating the equipment
- > Anticipate impacts of tools and equipment on the environment

UNIT STANDARD CCFO WORKING

Work effectively with others

- > work safely with due care for the health and well-being of others

UNIT STANDARD CCFO ORGANISING

Organise and manage myself and my activities

- > inspect and prepare tools and equipment before use
- > clean, maintain, care for and store tools, equipment and consumables correctly
- > follow correct operational procedures when using tools and equipment

UNIT STANDARD CCFO COLLECTING

Collect, analyse, organise and critically evaluate information

- > use sensory information to assess the condition of tools and equipment
- > use sensory information to assess the quality of performance

UNIT STANDARD CCFO COMMUNICATING

Communicate effectively

> record and report information related to handling and using tools and equipment

UNIT STANDARD CCFO SCIENCE

Use science and technology effectively and critically

> apply basic understanding of leverage, force, pressure and torque in order to use tools and equipment effectively and safely

> apply basic environmental principles when using tools and equipment in order to conserve resources and prevent damage to the environment

UNIT STANDARD CCFO DEMONSTRATING

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

> understand the interrelationship between the nature of the tool or piece of equipment, the purpose for which it is used, the correct methods of handling and using / operating it, and the individual's responsibility and obligations towards the environment and human health and safety

UNIT STANDARD ASSESSOR CRITERIA

N/A

REREGISTRATION HISTORY

As per the SAQA Board decision/s at that time, this unit standard was Reregistered in 2012; 2015.

UNIT STANDARD NOTES

N/A

QUALIFICATIONS UTILISING THIS UNIT STANDARD:

	ID	QUALIFICATION TITLE	PRE-2009 NQF LEVEL	NQF LEVEL	STATUS	END DATE	PRIMARY OR DELEGATED QA FUNCTIONARY
Core	49605	National Certificate: Environmental Practice	Level 2	NQF Level 02	Reregistered	2023-06-30	LG SETA

PROVIDERS CURRENTLY ACCREDITED TO OFFER THIS UNIT STANDARD:

This information shows the current accreditations (i.e. those not past their accreditation end dates), and is the most complete record available to SAQA as of today. Some Primary or Delegated Quality Assurance Functionaries have a lag in their recording systems for provider accreditation, in turn leading to a lag in notifying SAQA of all the providers that they have accredited to offer qualifications and unit standards, as well as any extensions to accreditation end dates. The relevant Primary or Delegated Quality Assurance Functionary should be notified if a record appears to be missing from here.

1. A4 Consultancy CC
2. ABA Sebenzi
3. Agisanang SA Training
4. Amabamba Recruitment
5. Atlegang Training Consulting
6. AVAX SA 481 CC. T/A Mandisa Development Services
7. Bantubanye Skills
8. BF QUALITY SOLUTIONS (PTY) LTD
9. Big Start Training and Development
10. Boni Africa Events & Development
11. Buena Vista Learning Academy
12. BUSINESS CIRCLE CONSULTATION
13. Classic Human Capital Solutions
14. CTC College(PTY) LTD.
15. Ditirelo Skills Development Services
16. Edutraining Business College
17. Elective Training Institute Enterprise CC
18. ENVOY PLANET CONSULTING AND PROJECTS (PTY) LTD
19. eThekweni Municipality - Durban
20. Fire Protection Association of Southern Africa
21. Goitsikitso Enterprise Trading
22. Green Horizon Consulting (Pty) Ltd

23. Growth Management Consulting
24. Icando
25. Ilinge Labantu Debt Solution
26. Inafrica General Trading Pty LTD
27. IQ Skills Academy (PTY) LTD.
28. KAGISHO BUSINESS CONCEPTS (Pty) LTD
29. Kernel Management and Consulting (PTY) LTD.
30. Kgolo Institute
31. KHOSITHI TRAINING
32. KNOWLEDGE PRODUCTION
33. Kuyakhula Development Initiatives
34. Mabuya Amahle Trading
35. Mahayi HRD Services cc
36. Makavila Suppliers CC.
37. Mangalani Business Enterprises
38. Mazasa Management Consulting CC.
39. Mbinga Holdings (Pty) Ltd
40. Mcebo Technologies
41. Mind Magic Consulting
42. Mission Point Consulting
43. Mortarboard Training Solutions
44. Networx for Career Development
45. NJ & L Trading Enterprise CC.
46. Nomagwanishe Investments cc
47. NOMAKU TRADERS CC
48. NS Global Academy
49. Outeniqua Leadership Institute
50. Outlearning Pty Ltd
51. Pioneer Business Consulting
52. Power Rush Trading 170 CC.
53. PWI CORPORATE TRAINING PTY LTD
54. Quick Leap Investment
55. RLSTP Training & Development (PTY) LTD.
56. Senelo Trading CC
57. Siljeur Training Academy
58. Sinokuhle Konke Trading Enterprise
59. Spring Forest Trading 578 CC
60. Talent Emporium Academy (PTY) Ltd
61. Thando Consulting Services
62. The Crimson CO CC.
63. Thubelihle Graduate Institute
64. TLD Consulting
65. Tloumogale Business Development & Consulting
66. Tshamutengo General Dealers CC.
67. Tshwane Skills Training Centre
68. Umfolozi FET College
69. University of Venda
70. Vicmat Consultants
71. XL AT Consulting CC
72. Ya Hina Management Consulting and projects
73. YAB Business Solutions (Pty)Ltd