

PERFORM ENVIRONMENTAL WASTE MANAGEMENT

ISCED UNIT CODE: 0521 451 10A

TVET CDACC UNIT CODE: ENV/OS/ENT/CR/01/5/MA

UNIT DESCRIPTION

This unit covers the competencies required to perform environmental waste management. It involves performing environmental waste segregation, performing environmental waste collection, performing environmental waste transportation, carrying out environmental waste treatment, carrying out environmental waste disposal and creating environmental waste management awareness

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace functions	PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements <i>(Bold and italicized terms are elaborated in the range)</i>
16. Perform environmental waste collection	2.1 Waste collection points are mapped as per sustainable waste management Act of 2022 (SWMA) 2.2 Waste collection bins are installed as per SWMA 2022 2.3 Waste is collected as per SWMA 2022 1.1 Waste collection is monitored as per SWMA 2022
17. Perform environmental waste segregation	1.2 Waste sources are mapped as per Sustainable waste management Act, 2022 1.3 Waste storage facilities coding is carried out as per the Sustainable waste management Act 2022 1.4 Waste segregation is carried out as per Sustainable waste management Act 2022
3. Perform environmental waste transportation	3.1 Waste collection points are designated as per the work procedures 3.2 Waste transportation facilities are assembled as per SWMA 2022 3.3 Waste is transported as per SWMA 2022 3.4 Waste transportation monitoring is done as per SWMA 2022
4. Carryout environmental waste treatment	4.1 Waste treatment sites mapping is carried out as per SWMA 2022 4.2 Waste treatment is carried out as per SWMA 2022 4.3 Waste treatment facility is monitored as per SWMA 2022

5. Carry out environmental waste disposal	5.1 Waste disposal site is mapped as per SWMA 2022 5.2 <i>Waste disposal sites</i> are segmented as per SWMA 2022 5.3 Waste is disposed as per SWMA 2022 5.4 Waste disposal activities are monitored as per SWMA 2022
6. Create environmental waste management awareness	6.1 Waste generation areas are mapped as per work requirements 6.2 Waste management data collection is carried out as per work requirement. 6.3 Waste management awareness activities are carried as per waste management recommendation. 6.4 Waste management activities are monitored as per SWMA 2022

RANGE

This section provides a work environment and conditions to which the performance criteria apply. It allows for a different work environment and situations that will affect performance.

Variable	Range
Waste sources may include, but are not limited to:	<ul style="list-style-type: none"> • Commercial premises • Hospitals • Pharmaceutical • Agricultural areas • Industries • Factories • Households • Municipal waste sources • Electronic waste sources • Construction activities • Demolition areas
Waste storage facilities coding may include, but are not limited to:	<ul style="list-style-type: none"> • Brown: Chemicals and pharmaceuticals waste • Yellow/Black: Radioactive waste • Yellow: Sharps • Black: Non-infectious • Red: Highly infectious
Waste segregation may include, but are not limited to:	<ul style="list-style-type: none"> • Recyclable waste • Infectious waste • Biodegradable waste • Non-biodegradable • Hazardous • E-waste • Organic waste
Waste collection points may include, but are not limited to:	<ul style="list-style-type: none"> • Residential areas • Commercial areas (CBD) • Municipal markets

	<ul style="list-style-type: none"> • Disaster preparedness • Medical facilities • Industrial areas • Public spaces • Waste storage bins
Waste transportation facilities may include, but are not limited to:	<ul style="list-style-type: none"> • Dump trucks and trailers • Landfill tippers • Walking floor trailers • Bulk Pneumatic tanker • Skip trucks • Waste compactor
Waste transportation monitoring may include but are not limited to:	<ul style="list-style-type: none"> • Spillage • Efficiency of transporting facilities • Effectiveness of transportation facility • Health and Safety risks
Waste treatment sites mapping may include but are not limited to	<ul style="list-style-type: none"> • Accessibility • Safety measures • Coverage
Waste treatment may include, but are not limited to:	<ul style="list-style-type: none"> • Disinfection • Thermal treatment • stabilization ponds • liquid waste convection • Recycling/Composting • Bioremediation • Bio-treatment
Waste disposal sites are segmented may include but are not limited to	<ul style="list-style-type: none"> • Rotation dumping • segmentation as per waste types
Waste disposal activities monitoring may include, but are not limited to:	<ul style="list-style-type: none"> • Inlet-outlet checks • Weighbridge management • Passages management • Monitor leachates • Monitor seepage • Awareness creation • Security checks • Enforcement
Waste generation areas may include, but are not limited to:	<ul style="list-style-type: none"> • Residential areas • Commercial areas (CBD) • Municipal markets • Disaster preparedness • Medical facilities • Industrial areas

	<ul style="list-style-type: none"> • Public spaces • Waste storage bins
Waste management data collection may include but are not limited to:	<ul style="list-style-type: none"> • Structured Questionnaires • Interviews • Observation checklists • Focused discussion groups • Media reports • Photographic recorders

REQUIRED KNOWLEDGE AND SKILLS

This section describes the knowledge and skills required for this unit of competency.

- Types of waste
- Waste segregation
- Waste collection
- Waste transportation
- Waste treatment
- Waste disposal
- Waste management monitoring

Required Skills

The individual needs to demonstrate the following skills:

- Mapping skills
- Data Collection skills
- Observation Skills
- Survey skills
- Monitoring Skills
- Creative and innovative
- basic ICT skills
- Problem-solving skills
- Assessing skills
- Resource mobilization
- Interpretation skills

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills range.

1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Carried out waste storage facilities coding as per the Sustainable waste management Act 2022. 1.2 Carried out waste segregation as per Sustainable waste management Act 2022. 1.3 Collected Waste as per SWMA 2022 1.4 Assembled waste transportation facilities are as per SWMA 2022 1.5 Transported waste as per SWMA 2022 1.6 Carried out waste treatment as per SWMA 2022 1.7 Segmented waste disposal sites as per SWMA 2022 1.8 Disposed waste as per SWMA 2022 1.9 Monitored waste disposal activities as per SWMA 2022
2.Resource implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Appropriately simulated environment where assessment can take place 2.2 Access to relevant work environment 2.3 Resources relevant to the proposed activity or tasks
3.Methods of assessment	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Observation 3.2 Oral questioning 3.3 Written test 3.4 Portfolio of Evidence 3.5 Interview 3.6 Third party report
4.Context of assessment	<p>Competency may be assessed:</p> <ul style="list-style-type: none"> 4.1 Workplace 4.2 Simulated work environment
5.Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector and workplace job role is recommended.</p>