

Assessment Evidence Guide

For

“Environmental Technician”

Level-4

Participate In Field Inspection And Investigation

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-1	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform in field inspection and investigation Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>Assessment Task 1: Perform field inspection as per given instructions and draft inspection report</p> <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Prepare for the field survey</p> <p>Performance Criteria 2: Visit and Identify hazards in the field</p> <p>Performance Criteria 3: Tabulate and orient the data in terms of time, place, and person</p> <p>Performance Criteria 4: Follow the standard format of inspection report</p> <p>Performance Criteria 5: Assist in implementation and evaluation of control and prevention measures</p> <p>Performance Criteria 6: Generate inspection and investigation report</p>
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	<div style="display: flex; justify-content: space-between;"> COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> </div> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to Prepare draft inspection report after conducting field inspection, using OHS&E Regulations		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Prepare for the field survey			
2.	Visit and Identify hazards in the field			
3.	Tabulate and orient the data in terms of time, place, and person			
4.	Follow the standard format of inspection report			
5.	Assist in implementation and evaluation of control and prevention measures			
6.	Generate inspection and investigation report			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-1	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform in field inspection and investigation Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY): Assessment Time: 30 minutes		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Differentiate between Focus Groups Surveys and Kiosk Survey.	
2. Enlist various hazards in the field.	
3. What is investigation report?	

ANSWER KEY

Sr.	Answers
1.	--A Focus Group is a research technique used to collect data through group interaction. --A Kiosk Survey is a touchscreen display device placed in various outlets that ask for feedback, often at the point of purchase.
2.	Extreme temperatures, poor air quality, excessive noise and radiation in the workplace can all harm workers, potentially causing respiratory problems, hearing loss and cancer, among other problems.
3.	Investigation report is an official document. This is a document often written, giving details of the findings of investigations being done. These reports can range from formal complaints made by customers addressed to the management, fire investigation report, and any incident report that is necessary to write one.

Assessment Evidence Guide

For

“Environmental Technician”

Level-4

Analyse Various Environmental Samples
(Formative Assessment)



National Vocational & Technical
Training Commission

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-2	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Analyze various Environmental Samples Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>Assessment Task 1: Perform the sample tracking and tests on various given samples</p> <p>Assessment Task 2: Generate a sample analysis report</p> <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Identify sample required</p> <p>Performance Criteria 2: Collect sample in specific container</p> <p>Performance Criteria 3: Label the samples</p> <p>Performance Criteria 4: Select equipment required for test</p> <p>Performance Criteria 5: Prepare sample for analysis</p> <p>Performance Criteria 6: Identify methods required for specific characterization</p> <p>Performance Criteria 7: Conduct desired analysis according to SOPs</p>
	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 2</p> <p>Performance Criteria 1: Collect data from the analysis</p>

	Performance Criteria 2: Generate report Performance Criteria 3: Ensure retention time of report
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to Preform of the sample tracking and tests on various given samples		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Identify sample required			
2.	Collect sample in specific container			
3.	Label the samples			
4.	Select equipment required for test			
5.	Prepare sample for analysis			
6.	Identify methods required for specific characterization			
7.	Conduct desired analysis according to SOPs			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Assessment Task 2		Description of Assessment Task 2 Candidate is required to Generate a sample analysis report		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Collect data from the analysis			
2.	Generate report			
3.	Ensure retention time of report			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-2	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Analyse various Environmental Samples Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY): Assessment Date Time: 30 minutes		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. How to prepare sample?	
2. Enlist method for sample collection?	
3. Define Sample tracking.	

ANSWER KEY

Sr.	Answers
1.	Sample preparation may involve dissolution, extraction, reaction with some chemical species, treatment with a chelating agent (e.g., EDTA), masking, filtering, dilution, sub-sampling or many other techniques.
2.	Grab sampling, composite sampling, random sampling and Integrated sampling
3.	Sample tracking helps laboratories know where samples are in the testing process. If additional tests are ordered, sample tracking allows the laboratory to rapidly identify the sample information and any previous testing carried out on the sample

Assessment Evidence Guide

For

**“Environmental
Technician”**

Level-4

**Perform Physical, Chemical and Biological Tests
on Air, Water and Soil Samples**

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-3	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform Physical, Chemical and Biological Tests on Air, Water and Soil Samples Apply Occupational Health, Safety and Environmental (OHS&E) Regulations 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1: Perform physical, chemical and biological tests on provided water sample</p> <p>Assessment Task 2: Perform physical and chemical tests on provided water sample</p> <p>Assessment Task 3: Perform physical and chemical tests on provided air sample</p> <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Identify the equipment and reagents required to conduct experiments.</p> <p>Performance Criteria 2: Wear PPEs</p> <p>Performance Criteria 3: Perform experiment to find water pH, turbidity, TDS, TSS, density, Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) etc.</p> <p>Performance Criteria 4: Conduct experiment to find out soil color, texture, structure, particle size, bulk density and soil permeability.</p> <p>Performance Criteria 5: Conduct experiment to measure concentration of different gases in air by using different air quality monitors.</p> <p>Performance Criteria 6: Perform tests to measure the concentration of different heavy metals and identify the microorganisms in air/water/soil</p>

	Portfolios required at the time of assessment (if any) for
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Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to Perform physical chemical and biological tests on provided sample using OHS&E Regulations		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Perform experiment to find water pH, turbidity, TDS, TSS, density, Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) etc.			
2.	Perform experiment to find water pH, turbidity, TDS, TSS, density, Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) etc.			
3.	Perform experiment to find water pH, turbidity, TDS, TSS, density, Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) etc.			
4.	Perform experiment to find water pH, turbidity, TDS, TSS, density, Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) etc.			
5.	Perform experiment to find water pH, turbidity, TDS, TSS, density, Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) etc.			
6.	Perform experiment to find water pH, turbidity, TDS, TSS, density, Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) etc.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-3	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Perform Physical, Chemical and Biological Tests on Air, Water and Soil Samples Apply Occupational Health, Safety and Environmental (OHS&E) Regulations 	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Define (Chemical Oxygen Demand) COD.	
2. Define (Biochemical Oxygen Demand) BOD.	
3. Differentiate between TSS and TDS.	
4. What is meant by PPEs?	

ANSWER KEY

Answer Key

Question No.	Answer
1.	Chemical oxygen demand is the amount of oxygen needed to oxidize the organic matter present in water. Chemical oxygen demand testing is used to determine the amount of oxidation that will occur and the amount of organic matter in a water sample. Chemical oxygen demand testing is also used to determine the amount of inorganic chemicals in a sample.
2.	Biochemical oxygen demand is the amount of oxygen consumed by bacteria and other microorganisms while they decompose organic matter under aerobic conditions.
3.	TSS is measured by weighing the dried material on the filter. TDS is defined as the portion of organic and inorganic solids passing through the same filter
4.	Personal protective equipment is a range of standardized gears worn to reduce chances and minimize the impact of injury causing situations while on the line of duty.

Assessment Evidence Guide

For

“Environmental Technician”

Level-4

**Operate various
Environmental Equipment**

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-4:	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> • Operate various Environmental Equipment • Apply Occupational Health, Safety and Environmental (OHS&E) Regulations 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>Assessment Task 1: Prepare a presentation using MS PowerPoint, including: Brief details of the equipment used for Biological, Chemical and Physical Quality Parameters with Pictures.</p> <p>Assessment Task 2: Perform Calibration of pH Meter with appropriate Buffer</p> <p>Assessment Task 3: Perform Acid base Titration on given sample</p> <p>And complete:</p> <p>3. Knowledge assessment test (Written or Oral)</p> <p>4. Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Prepare a presentation using MS PowerPoint, including: Brief details of the equipment used for Biological, Chemical and Physical Quality Parameters with Pictures.</p>
	<p>Assessment Task 2</p> <p>Performance Criteria 1: Check performance of the equipment before use</p> <p>Performance Criteria 2: Follow Original Equipment Manufacturer (OEM) guidelines</p> <p>Performance Criteria 3: Ensure the calibration of equipment</p>
	<p>Assessment Task 3</p>

	Performance Criteria 1: Use PPEs to ensure safety Performance Criteria 2: Follow the safety guidelines associated with equipment Performance Criteria 3: Disinfect the glassware/equipment as per requirement Performance Criteria 4: Ensure the calibration of equipment Performance Criteria 5: Operate equipment safely for required test/analysis Performance Criteria 6: Store equipment appropriately after use
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Prepare a presentation using MS PowerPoint, including: Brief details of the equipment used for Biological, Chemical and Physical Quality Parameters with Pictures.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Prepare a presentation using MS PowerPoint, including: Brief details of the equipment used for Biological, Chemical and Physical Quality Parameters with Pictures			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Assessment Task 2		Description of Assessment Task 2 Candidate is required to Perform Calibration of pH Meter with appropriate Buffer		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Check performance of the equipment before use			
2.	Follow Original Equipment Manufacturer (OEM) guidelines			
3.	Ensure the calibration of equipment			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Assessment Task 3		Description of Assessment Task 3 Candidate is required to perform Acid base Titration on given sample		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Use PPEs to ensure safety			
2.	Follow the safety guidelines associated with equipment			
3.	Disinfect the glassware/equipment as per requirement			
4.	Operate equipment safely for required test/analysis			
5.	Store equipment appropriately after use			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-4	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Operate various Environmental Equipment Apply Occupational Health, Safety and Environmental (OHS&E) Regulations 	Assessment Date (DD/MM/YY): Assessment Time :		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Define the term equipment.	
2. Enlist two equipment for each water, soil and air analysis.	
3. Define autoclave and explain its working.	

ANSWER KEY

Sr.	Answers
1.	A tool can be any item that is used to achieve a goal. Equipment usually denotes a set of tools that are used to achieve a specific objective. A tool can be non-mechanical as well. However, when one says equipment, there is a certain mechanical aspect to it that cannot be ignored
2.	<ul style="list-style-type: none">• For water analysis: pH meter, Spectrophotometer, Conductivity meter, Turbidity meter etc.• For air quality analysis: CO₂/CO meter, SO_x meter, NO_x meter. Etc.• For soil analysis: Sieves, hand auger, etc.
3.	An autoclave is an apparatus in which special conditions (such as high or low pressure or temperature) can be established for a variety of applications especially: an apparatus (as for sterilizing) using steam under high pressure.

Assessment Evidence Guide

For

“Environmental Technician”

Level-4

Inspect and Maintain Equipment

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-5	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Inspect and maintain equipment Apply Occupational Health, Safety and Environmental (OHS&E) Regulations 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <ol style="list-style-type: none"> Assessment Task 1: Candidate is required to detect a Minor or Major faults in given equipment and prepare a report Assessment Task 2: Calibrate given equipment and write down the Standard Operating Procedures <p>And complete: Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Identify the equipment and use relevant PPEs</p> <p>Performance Criteria 2: Identify equipment issues through inspections according to standard operating procedure</p> <p>Performance Criteria 3: Detect damage and separate the faulty equipment</p> <p>Performance Criteria 4: Determine the level of calibration by Comparing equipment measurement with a known value</p> <p>Performance Criteria 5: Identify any minor and major faults in equipment and repair minor faults</p> <p>Performance Criteria 6: Conduct cleaning of equipment</p> <p>Performance Criteria 7: Lubricate moving parts to reduce friction</p> <p>Performance Criteria 8: Adjust controls for optimal performance and energy efficiency</p>
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to Perform maintenance of a given faulty equipment and prepare maintenance report		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Identify the equipment and use relevant PPEs.			
2.	Identify equipment issues through inspections according to standard operating procedure.			
3.	Detect damage and separate the faulty equipment			
4.	Determine the level of calibration by Comparing equipment measurement with a known value			
5.	Identify any minor and major faults in equipment and repair minor faults			
6.	Conduct cleaning of equipment			
7.	Lubricate moving parts to reduce friction			
8.	Adjust controls for optimal performance and energy efficiency			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-5	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Inspect and maintain equipment Apply Occupational Health, Safety and Environmental (OHS&E) Regulations 	Assessment Date (DD/MM/YY): Assessment Date Time: 30 minutes		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
4. Importance of Preventive and Corrective Measures for equipment	
5. What is the difference between reference standard and working standard?	
6. Define the term calibration?	
7. Describe the purpose of lubrication.	

ANSWER KEY

Sr.	Answers
1.	Corrective action and preventive action help the company to improve the competitive situation by reducing operational costs saving time and ensuring compliance.
2.	Reference standards are of higher quality or precision and we use these standards very little whereas working standards are of lower precision and we use them in our daily routine.
3.	Calibration is a comparison between a known measurement (the standard) and the measurement using your instrument.
4.	<ul style="list-style-type: none">• Reduce friction (rubbing or deformation).• Prevent pieces from wear. Absorb/reduce shocks.• Protect from corrosion.

Assessment Evidence Guide

For

**“Environmental
Technician”**

Level-4

Manage Waste at Site

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-7	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Manage Waste at Site Apply Occupational Health, Safety and Environmental (OHS&E) Regulations 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1: Apply waste management techniques for different categories of waste using OHS&E regulations</p> <p>And complete: Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p>Assessment Task 1</p> <p>Performance Criteria 1: Follow organization health & safety policy & procedures</p> <p>Performance Criteria 2: Use relevant PPEs</p> <p>Performance Criteria 3: Follow local & international environmental regulations according to defined procedures</p> <p>Performance Criteria 4: Segregate waste on the basis of classification</p> <p>Performance Criteria 5: Use different containers for each category of waste</p> <p>Performance Criteria 6: Label each container for relevant waste category</p> <p>Performance Criteria 7: Implement 3R's waste management technique</p> <p>Performance Criteria 8: Dispose-off waste according to SOPs</p>
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to apply waste management techniques for different categories of waste using OHS&E regulations.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Follow organization health & safety policy & procedures			
2.	Use relevant PPEs			
3.	Follow local & international environmental regulations according to defined procedures			
4.	Segregate waste on the basis of classification			
5.	Use different containers for each category of waste			
6.	Label each container for relevant waste category			
7.	Implement 3R's waste management technique			
8.	Dispose-off waste according to SOPs			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-7	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Manage Waste at Site Apply Occupational Health, Safety and Environmental (OHS&E) Regulations 	Assessment Date (DD/MM/YY): Assessment Time: 30 minutes		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Explain 3R's Waste management technique.	
2. Describe various Types of waste.	
3. Difference between waste and contamination.	
4. What are the effects of waste on environment?	

Answer Key

Question No.	Answer
1.	<ul style="list-style-type: none">• Reduce means to cut back on the amount of trash we generate.• Reuse means to find new ways to use things that otherwise would have been thrown out. <p>Recycle means to turn something old and useless (like plastic milk jugs) into something new and useful (like picnic benches, playground equipment and recycling bins).</p>
2.	<p>Sources of waste can be broadly classified into five types:</p> <ul style="list-style-type: none">• Liquid Waste. Liquid waste includes dirty water, wash water, organic liquids, waste detergents and sometimes rainwater.• Solid Rubbish. Solid rubbish includes a large variety of items that may be found in households or commercial locations.• Organic Waste.• Recyclable Rubbish.• Hazardous Waste
3.	<ul style="list-style-type: none">• Waste: Waste is any substance which is discarded after primary use, or is worthless, defective and of no use. A by-product by contrast is a joint product of relatively minor economic value. A waste product may become a by-product, joint product or resource through an invention that raises a waste product's value above zero.• Contamination: Contamination is the presence of a constituent, impurity, or some other undesirable element that spoils, corrupts, infects, makes unfit, or makes inferior a material, physical body, natural environment, workplace, etc.
4.	<p>Poor waste management contributes to climate change and air pollution, and directly affects many ecosystems and species. Landfills, considered the last resort in the waste hierarchy, release methane, a very powerful greenhouse gas linked to climate change.</p>

**Assessment Evidence
Guide
For
“Environmental
Technician”
Act as a Liaison Between Operational
Staff And Management
Level-4
(Formative Assessment)**



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-8	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Act as a liaison between Operational Staff and Management Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:.....
Guidance for Candidate	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1: Play a role of technician to act as a bridge between senior and junior staff under the given scenario (provided by the assessor)</p> <p>And complete: Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p>Assessment Task 1</p> <p>Performance Criteria 1: Use team communication channels</p> <p>Performance Criteria 2: Communicate effectively to reduce uncertainty</p> <p>Performance Criteria 3: Discuss the meeting agenda with the supervisor</p> <p>Performance Criteria 4: Conduct a meeting with junior staff and supervisor for discussing all issues</p> <p>Performance Criteria 5: Ensure role clarity</p> <p>Performance Criteria 6: Communicate purpose of meeting with team</p> <p>Performance Criteria 7: Record minutes of meeting</p> <p>Performance Criteria 8: provide appropriate resources</p> <p>Performance Criteria 9: Ensure participation of junior staff in organizational tasks</p> <p>Performance Criteria 10: Monitor workloads</p> <p>Performance Criteria 11: Communicate feedback</p>
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to play a role of technician to act as bridge between senior and junior staff under the given scenario (provided by the assessor)		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Use team communication channels			
2.	Communicate effectively to reduce uncertainty			
3.	Discuss the meeting agenda with the supervisor			
4.	Conduct a meeting with junior staff and supervisor for discussing all issues			
5.	Ensure role clarity			
6.	Communicate purpose of meeting with team			
7.	Record minutes of meeting			
8.	provide appropriate resources			
9.	Ensure participation of junior staff in organizational tasks			
10.	Monitor workloads			
11.	Communicate feedback			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-8	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Act as a liaison between Operational Staff and Management Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY): Assessment Time: 30 minutes		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Define the term communication.	
2. Enlist 7C's of communication.	
3. Define the term active listening.	
4. Describe the importance of team communication in an organization.	

Answer Key

Question No.	Answer
1.	A process by which information is exchanged between individuals through a common system of symbols, signs, or behaviors. Communication is also an exchange of information.
2.	The seven Cs are: <ol style="list-style-type: none">1. Clarity2. Correctness3. Conciseness4. Courtesy5. Concreteness6. Consideration7. Completeness
3.	<ul style="list-style-type: none">• Active listening is a way of listening and responding to another person that improves mutual understanding.
4.	It makes sense that a group that enjoys each other's company is more likely to come together to work toward a common goal

Assessment Evidence Guide For “Environmental Technician”

**Assist the Supervisor in Cost Analysis
Related to Operations and Maintenance**

**Level-4
(Formative Assessment)**



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-9	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Assist the Supervisor in Cost Analysis related to Operations and Maintenance Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	During a practical assessment, under observation by an assessor, you will complete: Assessment Task 1: Perform cost analysis of operational and maintenance activities And complete: Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	Assessment Task 1 Performance Criteria 1: Enlist the operational and maintenance activities Performance Criteria 2: Identify and estimate costs and benefits of operational and maintenance activities Performance Criteria 3: Compile the data for maintenance and operational cost analysis Performance Criteria 4: Assign monetary value to each cost and benefit Performance Criteria 5: Compare costs and benefits (i.e. find out cost to benefit ratio)
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to play a role of technician to act as bridge between senior and junior staff under the given scenario (provided by the assessor)		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Enlist the operational and maintenance activities			
2.	Identify and estimate costs and benefits of operational and maintenance activities			
3.	Compile the data for maintenance and operational cost analysis			
4.	Assign monetary value to each cost and benefit			
5.	Compare costs and benefits (i.e. find out cost to benefit ratio)			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code: 0712-EPT-9	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Assist the Supervisor in Cost Analysis related to Operations and Maintenance Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY): Assessment Time: 30 minutes		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Enlist any two operational activities.	
2. Define cost benefit analysis.	
3. Enlist different cost evaluation methods.	

Answer Key

Question No.	Answer
1.	Manufacturing, distributing, marketing, testing and selling a product or service.
2.	<ul style="list-style-type: none">• A cost-benefit analysis is the process of comparing the projected or estimated costs and benefits (or opportunities) associated with a project decision to determine whether it makes sense from a business perspective.
3.	<p>Following are some methods for cost evaluation</p> <ul style="list-style-type: none">• BCA: benefit-cost analysis,• CEA: cost-effectiveness analysis.

Assessment Evidence Guide

For

“Environmental Technician”

**Assist in Regulatory Compliance and Other
Duties**

Level-4

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology (Environmental Technician)	CS Code: 0712-EPT-10	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Assist in Regulatory Compliance and other Duties Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY):		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1: Document the compliance process scenario given by the assessor</p> <p>And complete:</p> <p>Knowledge assessment test (Written or Oral)</p> <p>Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p>Assessment Task 1</p> <p>Performance Criteria 1: Identify applicable national regulations</p> <p>Performance Criteria 2: Stay updated with changing laws and regulations</p> <p>Performance Criteria 3: Follow SOPs for all procedures</p> <p>Performance Criteria 4: Gather relevant data for documentation of compliance</p> <p>Performance Criteria 5: Keep record for compliance</p> <p>Performance Criteria 6: Use software to store data electronically</p> <p>Performance Criteria 7: Follow retention time of record keeping</p>
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 Candidate is required to prepare a draft for compliance process by following applicable regulations.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Identify applicable national regulations			
2.	Stay updated with changing laws and regulations			
3.	Follow SOPs for all procedures			
4.	Gather relevant data for documentation of compliance			
5.	Keep record for compliance			
6.	Use software to store data electronically			
7.	Follow retention time of record keeping			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology (Environmental Technician)	CS Code: 0712-EPT-10	Level: 03	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Assist in Regulatory Compliance and other Duties Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II 	Assessment Date (DD/MM/YY): Assessment Date Time: 30 minutes		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Define the term Compliance.	
2. What is the main purpose of an audit?	
3. Differentiate between internal and external audits.	

Answer Key

Question No.	Answer
1.	Compliance means conforming to a rule, such as a specification, policy, standard or law. Ensure compliance means investigating and putting into effect the necessary procedures and mechanisms required to comply with the applicable safety rules, standards, and regulations.
2.	The prime purpose of the audit is to form an opinion on the information in the financial report taken as a whole, and not to identify all possible irregularities. This means that although auditors are on the look-out for signs of potential material fraud, it is not possible to be certain that frauds will be identified.
3.	Internal auditors will examine issues related to company practices and risks, while external auditors examine the records and issue an opinion regarding the statements of the company. Internal audits are conducted throughout the year, while external auditors conduct a single annual audit.

Assessment Evidence Guide For “Environmental Technician”

Level-4
(Summative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code:	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> • Apply Occupational Health, Safety and Environmental (OHS&E) Regulations • Observe Work Place Ethics-II • Perform field inspection and investigation • Analyse various Environmental Samples • Perform Physical, Chemical and Biological Tests on Air, Water and Soil Samples • Operate various Equipment related to Environmental Technology • Inspect and maintain equipment • Generate Operational and Maintenance Report • Manage Waste at Site • Act as a liaison between Operational Staff and Management • Assist the Supervisor in Cost Analysis related to Operations and Maintenance • Assist in Regulatory Compliance and other Duties 	Assessment Date (DD/MM/YY): Assessment Time: 5 hours		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p style="text-align: center;">Assessment Task 1: The trainee is provided with air/water/soil sample with relevant equipment. Examine its working, perform analysis and prepare relevant reports.</p> <p>And complete:</p> <ol style="list-style-type: none"> 1. Knowledge assessment test (Written or Oral) 2. Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Identify hazards and use PPEs to ensure safety</p> <p>Performance Criteria 2: Prepare sample for analysis according to SOPs</p> <p>Performance Criteria 3: Pretreat the sample, if required</p> <p>Performance Criteria 4: Perform the experiment on air/water/soil samples</p> <p>Performance Criteria 5: Take readings of the analysis</p>

	<p>Performance Criteria 6: Check the safety guidelines associated with equipment</p> <p>Performance Criteria 7: Ensure that equipment is stored safely after use</p> <p>Performance Criteria 8: Detect damage or fault in equipment (if any) according to standard operating procedures.</p> <p>Performance Criteria 9: Repair/replace any defective equipment parts</p> <p>Performance Criteria 10: Segregate waste on the basis of classification and label the containers for each category of waste</p> <p>Performance Criteria 11: Use software to store data electronically</p> <p>Performance Criteria 12: Generate operational report</p> <p>Performance Criteria 13: Draft the maintenance report</p> <p>Performance Criteria 14: Get it verified from supervisor</p>
	<p>Portfolios required at the time of assessment (if any) for</p> <p>Performance Criteria 1: File/folder of Perform field inspection and investigation</p> <p>Performance Criteria 2: File/folder of Analyse various Environmental Samples</p> <p>Performance Criteria 3: File/folder of Perform Physical, Chemical and Biological Tests on Air, Water and Soil Samples</p> <p>Performance Criteria 4: File/folder of Operate various Equipment related to Environmental Technology</p> <p>Performance Criteria 5: File/folder of Inspect and maintain equipment</p> <p>Performance Criteria 6: File/folder of Generate Operational and Maintenance Report</p> <p>Performance Criteria 7: File/folder of Manage Waste at Site</p> <p>Performance Criteria 8: File/folder of Act as a liaison between Operational Staff and Management</p> <p>Performance Criteria 9: File/folder of Assist the Supervisor in Cost Analysis related to Operations and Maintenance</p> <p>Performance Criteria 10: File/folder of Assist in Regulatory Compliance and other Duties</p>

Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Assessment Task 1	Description of Assessment Task 1 The trainee is provided with air/water/soil sample with relevant equipment. Examine its working, perform analysis and prepare relevant reports by following workplace ethics and waste management SOPs.		
During the practical assessment, candidate demonstrated the following:	Yes	No	Remarks
1. Identify hazards and use PPEs to ensure safety			
2. Prepare sample for analysis according to SOPs			
3. Pretreat the sample, if required			
4. Perform the experiment on air/water/soil samples			
5. Take readings of the analysis			
6. Check the safety guidelines associated with equipment			
7. Ensure that equipment is stored safely after use			
8. Detect damage or fault in equipment (if any) according to standard operating procedures.			
9. Repair/replace any defective equipment parts			
10. Segregate waste on the basis of classification and label the containers for each category of waste			
11. Use software to store data electronically			
12. Generate operational report			
13. Draft the maintenance report			
14. Get it verified from supervisor			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	
Each Assessment Task (with performance criteria)			

Portfolio		Description of Portfolio Candidate is required to present a portfolio including:		
Current <input type="checkbox"/>	Sufficient <input type="checkbox"/>	Authentic <input type="checkbox"/>	Valid <input type="checkbox"/>	Reliable <input type="checkbox"/>
Portfolio meet the following performance standards:		Yes	No	Remarks
1.	File/folder of Perform field inspection and investigation			
2.	File/folder of Analyse various Environmental Samples			
3.	File/folder of Perform Physical, Chemical and Biological Tests on Air, Water and Soil Samples			
4.	File/folder of Operate various Equipment related to Environmental Technology			
5.	File/folder of Inspect and maintain equipment			
6.	File/folder of Generate Operational and Maintenance Report			
7.	File/folder of Manage Waste at Site			
8.	File/folder of Act as a liaison between Operational Staff and Management			
9.	File/folder of Assist the Supervisor in Cost Analysis related to Operations and Maintenance			
10.	File/folder of Assist in Regulatory Compliance and other Duties			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Title of Qualification: National Competency Standards Level-4 for Environmental Technology “Environmental Technician” (Environmental Technician)	CS Code:	Level: 04	Version: 01
Competency Standard Title: <ul style="list-style-type: none"> Apply Occupational Health, Safety and Environmental (OHS&E) Regulations Observe Work Place Ethics-II Perform field inspection and investigation Analyse various Environmental Samples Perform Physical, Chemical and Biological Tests on Air, Water and Soil Samples Operate various Equipment related to Environmental Technology Inspect and maintain equipment Generate Operational and Maintenance Report Manage Waste at Site Act as a liaison between Operational Staff and Management Assist the Supervisor in Cost Analysis related to Operations and Maintenance Assist in Regulatory Compliance and other Duties 	Assessment Date (DD/MM/YY): Assessment Time: 30 minutes		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. What is importance of equipment maintenance?	
2. Describe how to collect samples from different environment.	

3. What are the types of air sampling equipment?	
4. Describe SOPs for waste disposal.	
5. Describe seven reasons why team communication is important in the workplace.	
6. Enlist types of recycling.	
7. What are objectives of PEPA?	
8. What are practical ways to reduce waste?	
9. Differentiate between pH and pOH.	

Answer Key

Question No.	Answer
1.	<ul style="list-style-type: none"> • Control costs and budget • Comply with regulations • Ensure personnel safety • Minimize equipment failure and production downtime • Extend useful machine life <p>Improve product quality</p>
2.	<p>The steps involved in environmental sampling are:</p> <ul style="list-style-type: none"> • Development of a sampling plan, including where and when samples will be collected and the number of samples required. • Collection of the samples. <p>Preservation of samples during transportation and storage.</p>
3.	<p>Equipment used to complete this sampling often includes teller bags (to pull air into for laboratory evaluation), dragger tubes (drawing air through a detector tube for detection of known contaminants), and direct-reading instruments (to test for presence/absence of contaminants or oxygen content).</p>
4.	<ul style="list-style-type: none"> • Identify wastes. • Evaluate waste. • Manage wastes. <p>Waste management programs.</p>
5.	<ol style="list-style-type: none"> 1. Builds healthy work relationships 2. Improves employee engagement 3. Impacts employee well being 4. Brings more innovation 5. Enhances transparency 6. Develop employee skills 7. Reduces conflicts
6.	<p>There three main types of recycling</p> <ul style="list-style-type: none"> • Mechanical Recycling • Energy Recycling • Chemical Recycling
7.	<p>Identify the needs for, and initiate legislation in various sectors of the environment. Provide information and guidance to the public on environmental matters. Specify safeguards for the prevention of accidents and disasters which may cause pollution.</p>
8.	<p>Practical Ways to Reduce Waste</p> <ul style="list-style-type: none"> • Buy fresh produce. • Compost. • Eliminate single-use items. • Recycle. • Thrift shop. • Use paperless billing. <p>Use your own containers.</p>

9.	pH refers to the “potential of hydrogen”. It can be used to determine whether a solution is acidic, basic or neutral. In contrast, pOH is a measure of hydroxide ion (OH ⁻) concentration. The key difference between pH and pOH is that pH is a measure of hydrogen ions whereas pOH is a measure of hydroxide ions.
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