DEMONSTRATE ENVIRONMENTAL LITERACY

UNIT CODE: ENG/OS/TXP/BC/05/5/A

UNIT DESCRIPTION

This unit describes the competencies required to demonstrate understanding of environmental literacy. It involves controlling environmental hazard, controlling control environmental pollution, complying with workplace sustainable resource use, evaluating current practices in relation to resource usage, identifying environmental legislations/conventions for environmental concerns, implementing specific environmental programs and monitoring activities on environmental protection/programs.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes that make up workplace function.	PERFORMANCE CRITERIA These assessable statements specify the required level of performance for each of the elements. *Bold and italicized terms are elaborated in the Range*
1. Control environmental hazard	1.1 *Storage methods* for environmentally *hazardous* materials are strictly followed according to environmental regulations and OSHS. 1.2 *Disposal methods* of hazardous wastes are followed always according to environmental regulations and OSHS. 1.3 *PPE* is used according to OSHS.
2. Control environmental Pollution control	2.1 Environmental pollution *control measures* are compiled following standard protocol. 2.2 Procedures for solid waste management are observed according to Environmental Management and Coordination Act 1999 2.3 Methods for minimizing *noise pollution* is complied with based on Noise and Excessive Vibration *Pollution and Control Regulations*, 2009
3. Demonstrate sustainable resource use	3.1 Methods for minimizing wastage are complied with. 3.2 Waste management procedures are employed following principles of 3Rs (Reduce, Reuse, Recycle) 3.3 Methods for economizing and reducing resource consumption are practiced as per the Environmental Management and Coordination Act 1999

4. Evaluate current practices in relation to resource usage	4.1 Information on resource efficiency **systems and procedures** are collected and provided to the work group where appropriate. 4.2 Current resource usage is measured and recorded by members of the work group. 4.3 Current purchasing strategies are analyzed and recorded according to industry procedures. 4.4 Current work processes to access information and data is analyzed following enterprise protocol.
5. Identify Environmental legislations/conventions for environmental concerns	5.1 Environmental **legislations/conventions** and local ordinances are identified according to the different **environmental aspects/impact** 5.2 **Industrial standard/environmental practices** are described according to the different environmental concerns
6. Implement specific environmental programs	6.1 Programs/Activities are identified according to organizations policies and guidelines. 6.2 Individual roles/responsibilities are determined and performed based on the activities identified. 6.3 Problems/constraints encountered are resolved in accordance with organizations' policies and guidelines 6.4 Stakeholders are consulted based on company guidelines
7. Monitor activities on Environmental protection/Programs	7.1 Activities are periodically monitored and evaluated according to the objectives of the environmental Program 7.2 Feedback from stakeholders are gathered and considered in proposing enhancements to the program based on consultations 7.3 Data gathered are analyzed based on evaluation requirements 7.4 Recommendations are submitted based on the findings 7.5 Management support systems are set/established to sustain and enhance the program 7.6 Environmental incidents are monitored and reported to concerned/proper authorities

RANGE

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

Variable	Range
1. PPE may include but not limited to:	- Mask - Gloves - Goggles - Safety hat - Overall - Hearing protector - Safety boots
2. Environmental pollution control measures may include but not limited to:	- Methods for minimizing or stopping spread and ingestion of airborne particles - Methods for minimizing or stopping spread and ingestion of gases and fumes - Methods for minimizing or stopping spread and ingestion of liquid wastes
3. Waste management procedures may include but not limited to:	- Sorting - Storing of items - Recycling of items - Disposal of items
4. Resources may include but not limited to:	- Electric - Water - Fuel - Telecommunications - Supplies - Materials
5. Workplace environmental hazards may include but not limited to:	- Biological hazards - Chemical and dust hazards - Physical hazards
6. Organizational systems and procedures may include but not limited to:	- Supply chain, procurement and purchasing - Quality assurance - Making recommendations and seeking approvals

REQUIRED SKILLS AND KNOWLEDGE

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

Required Skills

The individual needs to demonstrate the following skills:

- Observation

- Measuring
- Writing
- Communication
- Analytical
- Monitoring
- Evaluation

Required Knowledge

The individual needs to demonstrate knowledge of:

- Storage methods of environmentally hazardous materials
- Disposal methods of hazardous wastes
- Usage of PPE Environmental regulations
- OSHS
- Types of pollution
- Environmental pollution control measures
- Different solid wastes
- Solid waste management
- Different noise pollution
- Methods of minimizing noise pollution
- Solid Waste Act
- Methods of minimizing wastage
- Waste management procedures
- Economizing of resource consumption
- 3Rs principle
- Types of resources
- Techniques in measuring current usage of resources
- Calculating current usage of resources
- Types of workplace environmental hazards
- Environmental regulations
- Environmental regulations applying to the enterprise.
- Measurement and recording of current resource usage
- Analysis current work processes to access information and data Analysis of data and information
- Identification of areas for improvement
- Resource consuming processes
- Determination of quantity and nature of resource consumed
- Analysis of resource flow of different parts of the resource flow process
- Use/conversion of resources
- Causes of low efficiency of use
- Increasing the efficiency of resource use
- Inspection of resource use plans

- Regulations/licensing requirements
- Determine benefit/cost for alternative resource sources
- Benefit/costs for different alternatives
- Components of proposals
- Criteria on ranking proposals
- Regulatory requirements
- Proposals for improving resource efficiency
- Implementation of resource efficiency plans
- Procedures in monitor implementation
- Adjustments of implementation plan
- Inspection of new resource usage

EVIDENCE GUIDE

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

1. Critical Aspects of Competency	Assessment requires evidence that the candidate:
	1.1 Controlled environmental hazard
	1.2 Controlled environmental pollution
	1.3 Demonstrated sustainable resource use
	1.4 Evaluated current practices in relation to resource usage
	1.5 Demonstrated knowledge of environmental legislations and local ordinances according to the different environmental issues /concerns.
	1.6 Described industrial standard environmental practices according to the different environmental issues/concerns.
	1.7 Resolved problems/ constraints encountered based on management standard procedures
	1.8 Implemented and monitored environmental practices on a periodic basis as per company guidelines
	1.9 Recommended solutions for the improvement of the Program
	1.10 Monitored and reported to proper authorities any environmental incidents
2. Resource Implications	The following resources should be provided:
	2.1 Workplace with storage facilities
	2.2 Tools, materials and equipment relevant to the tasks (ex. Cleaning tools, cleaning materials, trash bags, etc.)
	2.3 PPE
	2.4 Manuals and references

		2.5 Legislation, policies, procedures, protocols and local ordinances relating to environmental protection 2.6 Case studies/scenarios relating to environmental Protection
3.	Methods of Assessment	Competency in this unit may be assessed through: 3.1 Observation 3.2 Oral questioning 3.3 Written test 3.4 Interview/Third Party Reports 3.5 Portfolio of evidence
4.	Context of Assessment	Competency may be assessed: 4.1 On-the-job 4.2 Off-the –job 4.3 During Industrial attachment
5.	Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.