



Australian Government

Department of Education, Employment and Workplace Relations

TLIU1009A Monitor plant and equipment in an environmentally sustainable manner

Release: 1

TLIU1009A Monitor plant and equipment in an environmentally sustainable manner

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to monitor plant and equipment in an environmentally sustainable manner. It includes minimising the effects of pollution during operations and monitoring of plant and equipment; and transporting and handling environmentally hazardous materials safely and in accordance with environmental protection regulations and guidelines. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Application of the Unit

Application of the Unit

Work must be carried out in accordance with relevant state/territory environmental protection regulations and workplace procedures. Work is performed under some supervision generally within a team environment. It involves the application of the basic environmental protection principles and regulations to the monitoring of plant and equipment in an environmentally sustainable manner.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|---|---|
| 1 Minimise the effects of pollution during operations | 1.1 Precautions are taken to ensure spilt fuel, lubricants and chemicals do not pollute the environment
1.2 Plant and equipment are operated efficiently to minimise pollution of the air environment through excessive exhaust emissions
1.3 Running of plant and equipment is minimised to avoid unnecessary noise and air pollution
1.4 Worksites are kept clean and tidy during work operations and the disposal of waste is in accordance with environmental regulations and workplace procedures |
| 2 Minimise the effects of pollution during monitoring of plant and equipment | 2.1 Routine checks are conducted or organised to ensure plant and equipment are operating correctly including emission controls if fitted
2.2 Suitable precautions are taken during the cleaning of plant and equipment not to pollute the environment
2.3 Care is taken during services and maintenance operations to implement housekeeping procedures and environmental protection precautions and procedures
2.4 Rubbish is deposited in designated rubbish disposal bins |
| 3 Transport/handle environmentally hazardous materials safely | 3.1 Relevant documentation is completed in accordance with government regulations and workplace requirements
3.2 Waste and effluent is disposed of in accordance with government regulations and workplace procedures
3.3 Environmentally hazardous materials are handled and moved in accordance with relevant regulations, workplace procedures and guidelines aimed at minimising the risk of environmental pollution
3.4 Where required routes for plant and equipment carrying hazardous and noxious loads are planned to minimise the risk to the environment in the event of accident or spillage |

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

- Relevant environmental protection regulations
- Workplace procedures and guidelines monitoring plant and equipment in an environmentally sustainable manner during workplace operations

REQUIRED KNOWLEDGE AND SKILLS

- Environmental risks when carrying out workplace operations, and related precautions to control the risk
- Environmental protection standards required in the workplace
- Site layout including location of rubbish disposal bins
- Application of relevant environmental protection regulations and requirements
- Service and maintenance procedures and checklists for equipment and vehicles
- Procedures and processes for waste and effluent regulation where applicable
- Environmental hazards and toxicity of materials typically carried in loads
- Emission control checking requirements for plant and equipment
- Typical problems that can occur when caring for the environment, and appropriate action that can be taken to prevent or solve them

Required skills:

- Communicate effectively with others when monitoring plant and equipment in an environmentally sustainable manner
- Read and interpret instructions, procedures and information relevant to the monitoring of plant and equipment in an environmentally sustainable manner
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to monitoring plant and equipment in an environmentally sustainable manner
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when monitoring plant and equipment in an environmentally sustainable manner
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Promptly report and/or rectify any identified problems that may arise when monitoring plant and equipment in an environmentally sustainable manner in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unanticipated situations that may occur when monitoring plant and equipment in an environmentally sustainable manner
- Monitor work activities in terms of planned schedule
- Modify activities depending on differing operational contingencies, risk situations and environments
- Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- Recognise potential pollution risks and ways of minimising them
- Identify and correctly use equipment and vehicles in accordance with environmental protection regulations and guidelines

Required skills:

- Follow routine service and maintenance procedures for equipment and vehicles
- Adapt to differences in equipment and operating environment in accordance with standard operating procedures
- Select and use required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of:
 - applying the underpinning knowledge and skills
 - identifying suitable precautions to prevent plant and equipment from polluting the environment
 - identifying suitable disposal and transport methods of hazardous or noxious materials
 - applying relevant legislation and workplace procedures

Context of and specific resources for assessment

- Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- Resources for assessment include:
 - a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
 - access to an appropriate range of relevant operational situations in the workplace
- In both real and simulated environments, access is required to:
 - relevant and appropriate materials and/or equipment, and/or
 - applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

EVIDENCE GUIDE

Method of assessment

- As a minimum, assessment of knowledge must be conducted through appropriate assessments using written/practical/oral assessments
- Practical assessment must occur:
 - through activities in an appropriately simulated environment, and/or
 - in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Maintaining operating equipment in an environmentally sustainable environment may be conducted:

- in a range of work environments by day or night

Customers may be:

- internal or external

Workplaces may comprise:

- large, medium or small worksites in the transport/logistics industries

Pollutants may include:

- exhaust fumes
- oils and lubricants
- gas
- smoke
- chemicals and detergents
- rubbish
- noise
- wastes
- noxious material
- hazardous substances

Plant and equipment may include:

- motor vehicles, trucks and motorcycles
- fixed equipment emitting exhaust fumes/gases
- rail locomotives and motive power units
- marine vessels
- forklifts, cranes and load shifting equipment
- tow motors
- aircraft
- portable equipment emitting exhaust fumes/gases

RANGE STATEMENT

Personnel in the work area may include:	• spill response equipment • workplace personnel • site visitors • contractors • official representatives
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	• company procedures • enterprise procedures • organisational procedures • established procedures
Depending on workplace context, personal protective equipment may include:	• gloves • safety headwear and footwear • eye/ear protection • two-way radios • high visibility clothing • mask • bio hazard suits • protective clothing • carbon monoxide (CO) detector
Information/documents may include:	• OH&S and environmental protection regulations • workplace housekeeping procedures and policies • codes of practice for environmental protection • material safety data sheets • policies and procedures for entry and work in confined spaces • manufacturers instructions • supplier and/or client instructions • emergency procedures • regulations and policies concerning noise, waste disposal/reprocessing, handling of dangerous goods/hazardous substances and other environmental protection issues • goods identification numbers and codes • manifests, bar codes, goods and container identification • relevant legislation, regulations and related documentation • award, enterprise bargaining agreement, other industrial arrangements • standards and certification requirements • quality assurance procedures
Applicable regulations and legislation may include:	• relevant state/territory environmental protection legislation • relevant state/territory OH&S legislation

RANGE STATEMENT

- marine orders
- workplace relations regulations
- current ADG Code

Unit Sector(s)

Not Applicable

Competency Field

Competency Field U - Environment