Australian Government

Department of Education, Employment and Workplace Relations

UEENEEK118A Maintain and monitor remote area essential service (RAPS) operations

Release: 1

UEENEEK118A Maintain and monitor remote area essential service (RAPS) operations

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor **1) Scope:**

1.1) Descriptor

This unit covers basic maintenance power station compound of remote area infrastructure facilities, monitoring power station performance and developing a basic maintenance schedule. It encompasses working safely, to maintenance standards and following maintenance routines, identifying deterioration and damage to facilities using routine procedures, reading and recording performance information from instruments/meters and completing the necessary reporting.

Application of the Unit

Application of the Unit **2)**

This unit is intended primarily for indigenous persons seeking qualifications in remote area utilities facilities servicing. The unit may also be applied to work entry qualifications in renewable energy service work in general and be used in school-based vocational programs.

Licensing/Regulatory Information

License to practice **3)**

The skills and knowledge described in this unit do not require a license to practice in the workplace. However, practice in this unit is subject to regulations directly related to occupational health and safety and contracts of

License to practice **3)**

training such as new apprenticeships.
Note:
1. Compliance with permits may be required in various jurisdictions and typically relates to the operation of plant, machinery and equipment such as elevating work platforms, powder operated fixing tools, power operated tools, vehicles, road signage and traffic control and lifting equipment. Permits may also be required for some work environments such as confined spaces, working aloft, near live electrical apparatus and site rehabilitation.
2. Compliance may be required in various jurisdictions relating to currency in First Aid, confined space, lifting, risk safety measures etc

Pre-Requisites

Prerequisite Unit(s) **4)**

Competencies **4.1)**

Granting competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.

UEENEEE101A	Apply Occupational Health Safety regulations, codes and practices in the workplace
UEENEEK102A	Work safely with remote area power supply systems

Literacy and numeracy skills **4.2)**

Participants are best equipped to achieve competency in this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 ‘Literacy and Numeracy’

Reading 3 Writing 3 Numeracy 3

Employability Skills Information

Employability Skills	**5)**
	The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit	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 Prepare to maintain and power station compound and monitor performance.	1.1	OHS procedures for a remote area power station facility is identified, obtained and understood through established routines and procedures
	1.2	Established OHS risk control measures and procedures in preparation for the work are followed
	1.3	Safety hazards which have not previously been identified are reported and advice on risk control measures is sought from the work supervisor
	1.4	The nature and location of remote area power station facility is obtained from documentation or from work supervisor to establish the scope of work to be undertaken
	1.5	Advice is sought from the work supervisor to ensure the work is coordinated effectively with fellow workers and the local community
	1.6	Sources of materials that may be required for the work are identified and accessed in accordance

ELEMENT		PERFORMANCE CRITERIA	
			with established routines and procedures
		1.7	Tools, equipment and testing devices needed to carry out the work are obtained and checked for correct operation and safety.
		1.8	Established procedures are followed to repair or replace defective and unsafe tools and service equipment.
2	Maintain power station compound and monitor performance	2.1	Established OHS risk control measures and procedures for carrying out the work are followed
		2.2	Circuits/machines/plant are checked as being isolated where necessary in strict accordance OHS requirements and procedures
		2.2	Established procedures are followed to clean and tidy power station building, generating equipment and compound to maintain safe and efficient plant area.
		2.3	Inspection and reporting is conducted on suitability, location and legibility of safety signage.
		2.4	Inspection and reporting is conducted on location, suitability and condition of fighting equipment
		2.5	Performance, status and fuel and oil use of generation equipment is monitored and logged from information displayed instruments, meters and measuring devices.
		2.7	Procedures are followed for referring non-routine events to immediate supervisor for directions
		2.8	Routine quality checks are carried out in accordance with work instructions
3	Develop basic maintenance schedule and complete work report	3.1	OHS work completion risk control measures and procedures are followed.
		3.2	Maintenance schedule is developed from logged information on power station performance, status

ELEMENT	PERFORMANCE CRITERIA	
		and condition of compound.
	3.3	Procedures are followed for referring maintenance issues beyond the scope of prescribed work to persons of higher authority.
	3.4	Work carried out is reported to the work supervisor through the established maintenance reporting procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) This describes the essential skills and knowledge and their level, required for this unit.
Evidence must show that knowledge has been acquired of safe working practices and maintaining and repairing facilities associated with remote area essential service operations.
All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-EK118A Power station and compound maintenance

Evidence shall show an understanding of RAPS compound maintenance and meter reading to an extent indicated by the following aspects:

Maintaining clean, tidy and safe condition of the power station building and generating equipment encompassing:

- Removal of generating plant oil, coolant and fuel leaks.
- Removal fluid spills from plant room floor areas.
- Cleaning of power house ventilation systems
- Removal of insects and fauna from plant area.
- Environmentally safe disposal of used consumables and rubbish.
- Repositioning empted rubbish bins.
- Correct storage of plant spares.

Maintaining a clean, tidy and safe working environment of power station compound encompassing:

- Repairing and securing compound perimeter fencing and gates.

REQUIRED SKILLS AND KNOWLEDGE

- Removal and environmentally safe disposal of flora from the fence line and plant room perimeter.
- Removal and environmentally safe disposal compound rubbish
- Cutting and watering the compound grassed area.
- Safe arrangements for storage of fuel drums and other flammable liquids.
- Maintaining water reticulation equipment.

Inspecting, classifying and repairing the power station tools and equipment encompassing:

- Inspecting and reporting hand tools and service equipment for serviceability.
- Equipment repair procedures.
- Cleaning and storage of tools and equipment.

Inspecting and reporting on the safety signage displayed in the power station and on the perimeter fence encompassing:

- Types and location of safety signs relevant to a community power station and compound.
- Reporting on the conditions and suitability of the signs.

Locating, inspecting and reporting on the fixed and portable fire fighting equipment contained in and around the power station encompassing:

- Types of fire fighting equipment suitable for a power station.
- Typical locations of power station fire fighting equipment.
- Inspecting and reporting suitability and condition of fire fighting equipment.

Instruments/meters showing performance/status of community power stations encompassing:

- Types of information displayed on the instrument panel and switchboards (engine oil pressure, coolant temperatures fuel pressure/flow, amperes, voltage, kilowatt, kilowatt hours, frequency Hertz, and engine running hours).
- Instrument/meter reading and recording techniques.
- Dip stick measurement measure and recording methods of bulk fuel and engine oil.

Developing maintenance schedules from logged information of community power station performance encompassing:

- Logged information is that listed in T1 above.

REQUIRED SKILLS AND KNOWLEDGE

- Maintenance schedules includes timely ordering of fuel, coolant and engine oil, engine oil changes, engine oil filter changes, fan belt condition and adjustment, air cleaner element service, minor tune up requirements, valve adjustments and minor and major overhaul work.

Instrument/meter reading and maintenance scheduling records.

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the unit and must be read in conjunction with the performance criteria and the range statement of the unit and the Training Package Assessment Guidelines.
The Evidence Guide forms an integral part of this unit. It must be used in conjunction with all parts of this unit and performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment **9.1)**

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the industry-preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. In some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accordance with industry and regulatory policy.
Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.
The critical safety issues inherent in working with electricity, electrical equipment, gas or any other hazardous substance/material present a challenge for those determining

competence. Sources of evidence need to be 'rich' in nature to minimise error in judgment.
Activities associated with normal everyday work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practised. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the Assessment Guidelines of this Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

9.2)

Before the critical aspects of evidence are considered all prerequisites must be met.
Evidence for competence in this unit must be considered holistically. Each element and associated performance criteria must be demonstrated on at least two occasions in accordance with the 'Assessment Guidelines – UEE11'. Evidence must also comprise:

- A representative body of work performance demonstrated within the timeframes typically expected of the discipline, work function and industrial environment. In particular this must incorporate evidence that shows a candidate is able to:
  - Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the performance criteria and range statement
  - Apply sustainable energy principles and practices as specified in the performance criteria and range statement.
  - Demonstrate an understanding of the essential knowledge and associated skills as described in this unit. It may be required by some jurisdictions that RTOs provide a percentile graded result for the purpose of regulatory or licensing requirements.
  - Demonstrate an appropriate level of skills enabling employment
  - Conduct work observing the relevant Anti Discrimination legislation, regulations, polices and workplace procedures

- Demonstrated consistent performance across a representative range of contexts from the prescribed items below:
  - Maintain and monitor remote area essential service operations as described in 8) and including:

A	Understanding the location and nature of the work required
B	Following established procedures for repairing or replacing defectives tools and service equipment
C	Cleaning and tidying power station building, generating equipment and compound effectively.
D	Correctly inspecting and reporting suitability, location and legibility of safety signage.
E	Correctly inspecting and reporting location, suitability and condition of fighting equipment.
F	Accurately monitoring and logging performance, status and fuel and oil use of generation equipment.
G	Developing an appropriate basic maintenance schedule from logged information
H	Documenting work activities accurately
I	Dealing with unplanned events by drawing on essential knowledge and skills to provide appropriate solutions incorporated in a holistic assessment with the above listed items Note: Successful completion of relevant vendor training may be used to contribute to evidence on which competency is deemed. In these cases the alignment of outcomes of vendor training with performance criteria and critical aspects of evidence must be clearly identified

Context of and specific resources for assessment

9.3)

This unit should be assessed as it relates to normal work practice

using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to undertake actual work as prescribed by this unit.

These should be part of the formal learning/assessment environment.
Note:
Where simulation is considered a suitable strategy for assessment, conditions must be authentic and as far as possible reproduce and replicate the workplace and be consistent with the approved industry simulation policy.
The resources used for assessment should reflect current industry practices in relation to maintaining and repairing facilities associated with remote area essential service operations.

Method of assessment **9.4)**

This unit shall be assessed by methods given in Volume 1, Part 3 'Assessment Guidelines'.
Note:
Competent performance with inherent safe working practices is expected in the Industry to which this unit applies. This requires assessment in a structured environment which is intended primarily for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and skills described in this unit.

Concurrent assessment and relationship with other units **9.5)**

There are no concurrent assessment recommendations for this unit.

The critical aspects of occupational health and safety covered in unit UEENEEE101A and other discipline specific occupational health and safety units shall be incorporated in relation to this unit.

Range Statement

RANGE STATEMENT

10) This relates to the unit as a whole providing the range of contexts and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.
This unit must be demonstrated in relation to least two different remote area essential service operations.
Generic terms used throughout this Vocational Standard shall be regarded as part of the Range Statement in which competency is demonstrated. The definition of these and other terms that apply are given in Volume 2, Part 2.1.

Unit Sector(s)

Not applicable.

Competency Field

Competency Field **11)**

Renewable and Sustainable Energy