

1. Module details**Module name****Power Station and Compound Maintenance****Module duration**

It is expected that students with the appropriate entry knowledge and skills will successfully complete this module in 54 - 60 hours.

Module code

NUE027

Discipline code

07031

2. Module purpose

This module will provide the learners with the skills required to perform the duties necessary to maintain a neat, tidy, safe power station and compound.

3. Prerequisites

Nil.

4. Relationship to competency standards

This module provides part of the underpinning knowledge and skills in the 'Evidence Guide' of specific units of competency in the National Electrotechnology Training Package and provides similar support, where mapped, to equivalent units in the National Metals and Engineering Competency Standards. For details refer to the module to unit maps, available from NUEITAB.

5. Content**General cleanliness of the power stations plant and buildings**

Generation plant

Oil leaks

Water leaks

Fuel leaks

Safety awareness

Plant buildings

Internal floor area

Used consumables

Spare parts storage

Spider webs & other pests

Rubbish containers

Ventilation

Safety awareness

Power station compound

Fence and gate (if applicable)

Weeds

Grass (if applicable)

Rubbish containers

Fuel and oil supply, (drums)

Water reticulation (if applicable)

Safety awareness

Tools and equipment

Location/storage

Cleanliness

Maintenance

Drain/drip tins

Safety awareness

Safety signage

Location

Condition

Suitability

6. Assessment strategy

Assessment methods

Assessment should be progressive reflecting a holistic approach to ensure the module purpose is met. To assist in ensuring validity, reliability and fairness assessment instruments should include practical exercises, assignments and written tests consisting of a number of item types, such as multiple choice, short answer and problem solving.

Conditions of assessment

Learning and assessment will take place in an environment that is conducive to a learner's development.

7. Learning outcome details

Learning outcome 1

Maintain the power station building and generating equipment in a clean, tidy and safe condition.

Assessment criteria

- 1.1 Clean/Remove from the generating plant any leaking:
 - oil
 - coolant
 - fuel.
- 1.2 Remove any fluid spills from the floor area of the plant room.
- 1.3 Dispose of all used consumables in an environmentally friendly manner.
- 1.4 Remove all spider webs and other insects/pests.
- 1.5 Empty and reposition the rubbish tins.
- 1.6 Place all spare parts in their correct location ready for future use.
- 1.7 Clean all power house ventilation systems.
- 1.8 Observe all safety procedures including the wearing of personal protective equipment.

Learning outcome 2

Maintain the community's power station compound and promote a clean, tidy and safe working environment.

Assessment criteria

- 2.1 Repair and secure the compound perimeter fence.
- 2.2 Repair and secure the compound gates (gates should be locked).
- 2.3 Remove weeds, debris and trees from the fence line and plant room perimeter.
- 2.4 Cut and water the compound's grassed area (if applicable).
- 2.5 Remove and dispose of the compound's rubbish.
- 2.6 Organise and store fuel drums and other flammable liquids.
- 2.7 Maintain water reticulation equipment (if applicable).
- 2.8 Observe all safety procedures including the wearing of personal protective equipment.

Learning outcome 3

Inspect, classify and repair the power station tools and equipment.

Assessment criteria

- 3.1 Inspect and report hand tools for serviceability.
- 3.2 Inspect and report on the serviceability of the station's service equipment.
- 3.3 Repair the equipment if economically viable.
- 3.4 Clean and store tools and equipment in the appropriate place.
- 3.5 Observe all safety procedures including the wearing of personal protective equipment.

Learning outcome 4

Inspect and report on the safety signage displayed in the power station and on the perimeter fence.

Assessment criteria

- 4.1 Locate and record the presence of the safety signs.
- 4.2 Report on the conditions and suitability of the signs.
- 4.3 Renew damaged or illegible safety signs.

Learning outcome 5	Locate, inspect and report on the fixed and portable fire fighting equipment contained in and around the power station.
Assessment criteria	<p>5.1 Locate and inspect the station’s fire extinguishers.</p> <p>5.2 Report on their condition and suitability to the station.</p> <p>5.3 Locate and report on the condition of the fixed hose and reel type equipment, (if applicable).</p> <p>5.4 Observe all safety procedures including the wearing of personal protective equipment.</p>
8. Delivery of the module	
Delivery strategy	<p>Delivery strategies must be suitable for learning both theoretical and practical aspects described in the module purpose. It is considered that the most effective method to achieve this is by integration of theory and practice where students learn by experimentation, research and reports. It is recommended that learning and assessment be facilitated in a holistic manner that may require learning outcome sequence other than that indicated in the module.</p>
Resource requirements	<p>Students will need access to an operational powerhouse to gain maximum benefit from this module. They will also need access to all service manuals for the equipment they are training on.</p>
Occupational health and safety requirements	<p>A safe and healthy environment will be provided for students and teachers as well as the particular safety procedures followed as part of the learning / teaching activity and content.</p>