



Australian Government

UEPMNT304 Maintain mechanical pumps

Release: 2

UEPMNT304 Maintain mechanical pumps

Modification History

Release 2. Minor release to update superseded pre-requisite units.

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Application

This unit involves the skills and knowledge required to undertake the installation and maintenance of mechanical pumps (no more than basic alignment). Pump maintenance, including installation, is undertaken to ensure optimal performance of equipment and plant in a power generation facility.

Competency in this unit requires the ability to plan work, remove mechanical pumps for maintenance, maintain mechanical pumps, replace and/or install mechanical pumps and to report on all completed work tasks. Individuals will, in general, work under supervision in an electrical, electronic and/or mechanical equipment repair workshop or on site.

Power generation maintenance personnel are typically trained and authorised to receive permits to work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Note: Workplace practice

The application of the skills and knowledge described in this unit may require a licence or training permit to practice in the workplace where work is carried out on gas and electrical installations. Additional conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

MEM09002 Interpret technical drawing

MEM12023 Perform engineering measurements

MEM18001 Use hand tools

MEM18002 Use power tools/hand held operations

MEM18003 Use tools for precision work

MEM18006 Perform precision fitting of engineering components

MEM18055 Dismantle, replace and assemble engineering components

Competency Field

Maintenance

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan and prepare for work

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Requirements including scope of work and assigned roles are identified and confirmed with appropriate personnel or by site inspection, in accordance with workplace procedures
- 1.2** Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations, legislative requirements, industry standards, codes of practice, manufacturers' specifications, environmental obligations and workplace procedures are reviewed in preparation for work
- 1.3** Resources are obtained and inspected for compliance with job specification
- 1.4** Relevant plans, drawings and manuals are selected and used, in accordance with workplace procedures
- 1.5** Correct materials and components for work are obtained and inspected, in accordance with workplace procedures, for compliance with job specification
- 1.6** Work is planned, sequenced and prioritised, in accordance with workplace procedures
- 1.7** Potential hazards are identified and risk control measures are selected and implemented, in accordance with workplace procedures
- 1.8** Work area is prepared, in accordance with workplace procedures

2 Remove mechanical

- 2.1** Isolations are confirmed, where appropriate, in accordance with workplace procedures and site

pumps for maintenance	requirements
	2.2 Mechanical pump is disconnected, in accordance with the workplace procedures
	2.3 Mechanical pump is removed, in a manner which will assist in replacement, in accordance with workplace procedures
	2.4 Mechanical pump is inspected for abnormalities, in accordance with workplace procedures
3 Maintain mechanical pumps	3.1 Maintenance is performed, in accordance with manufacturers' specification and workplace procedures
	3.2 Mechanical pump is dismantled, in accordance with manufacturers' specification and workplace procedures
	3.3 Sketches are made, data is noted and components are marked for identification or reassembly, in accordance with workplace procedures
	3.4 New components are inspected for compliance, in accordance with workplace procedures and manufacturers' specifications
	3.5 Dimensional inspection is performed, with precision measuring devices, in accordance with workplace procedures, to ensure compliance with manufacturers' specifications and results are recorded
	3.6 Mechanical pump is reassembled, applying appropriate principles and techniques, in accordance with workplace procedures and manufacturers' specifications
	3.7 Modifications and/or alterations to mechanical pump are undertaken, in accordance with workplace procedures
4 Replace or install mechanical pumps	4.1 Equipment is prepared for pump replacement, in accordance with workplace procedures
	4.2 Mechanical pump is replaced, in accordance with workplace procedures and manufacturers' specification
	4.3 Mechanical pump is levelled, aligned, coupled and connected, in accordance with workplace procedures
	4.4 All fastenings are torqued, in accordance with workplace procedures and manufacturers' specifications

- 4.5 Machinery and/or plant, including mechanical pump, are given a test run, and are monitored and adjusted, as required, in accordance with workplace procedures and manufacturers' specifications
- 5 **Complete work**
 - 5.1 Work is completed, and appropriate personnel are notified, in accordance with workplace procedures
 - 5.2 Work area is cleared of waste, cleaned, restored and secured, in accordance with workplace procedures
 - 5.3 Tools and equipment are maintained and stored, in accordance with workplace procedures
 - 5.4 Work completion details are finalised, in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPMNT304B Maintain mechanical pumps.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>