



Australian Government

UEPOPS511 Tune process plant and equipment

Release: 1

UEPOPS511 Tune process plant and equipment

Modification History

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 complete the investigation, nomination and adjustment of tuning parameters associated with power generation process plant and equipment

Tuning is a method in which one or more parameters of power generation plant and equipment are adjusted up or down to achieve an improved or specified result. Tuning will include testing and reviewing power generation process plant and equipment to identify faults.

Competency in this unit requires the ability to plan and prepare to tune generation process plant and equipment, testing and implementing process plant tuning and completing documentation. Individuals will, in general, work under supervision as an operator, in a power generation facility.

Power generation plant operators are typically trained and authorised to isolate, prepare plant and issue 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

There are no prerequisite units.

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Plan and prepare work

- 1.1 Tuning requirements for process plant and equipment are identified from appropriate personnel and documentation, in accordance with workplace procedures
- 1.2 Resource and equipment requirements are identified, in accordance with workplace procedures
- 1.3 Process plant availability, capability and limitations are identified, in accordance with workplace procedures
- 1.4 Testing and monitoring equipment are connected, in accordance with workplace procedures, testing requirements and process plant integrity
- 1.5 Initial operating state for process plant is maintained for testing, in accordance with workplace procedures, legislative requirements and industry standards
- 1.6 Test procedures are identified and recording documentation or equipment is prepared, in accordance with workplace procedures
- 1.7 Testing equipment is calibrated, in accordance with workplace procedures, industry standards and manufacturers' specifications

2 Test plant and implement tuning

- 2.1 Field instrumentation and control elements are checked for calibration and correct operation, in accordance with workplace procedures and manufacturers' specifications
- 2.2 Testing and tuning is performed, in accordance with workplace procedures and tuning program requirements
- 2.3 Variations are reassessed and accommodated to enable test objectives to be met
- 2.4 Testing results are analysed with reference to desired outcomes, and new settings for process plant are determined, in accordance with workplace procedures
- 2.5 Accuracy of test results is assessed through analysis of

- test data, in accordance with workplace procedures
- 2.6** Process plant is retuned to achieve desired outcomes, in accordance with workplace procedures
- 3 Complete documentation**
- 3.1** Records are updated and documentation is retained, in accordance with workplace procedures
- 3.2** Changes to equipment operational settings are recommended to appropriate personnel, in accordance with workplace procedures
- 3.3** Implementation of recommendations are monitored, 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 UEPOPS511B Tune process plant and equipment.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for UEPOPS511 Tune process plant and equipment

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and includes:

- analysing test results
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) legislated requirements including:
 - emergency procedures
 - risk control measures
 - safety procedures
- communicating with personnel
- completing documentation using recording procedures
- coordinating testing operations using monitoring procedures
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers specifications and manuals
- locating process plant and equipment
- planning and preparing for tuning
- setting up and using testing or tuning equipment
- translating and using tuning parameters and settings
- using data analysis techniques and tools
- utilising testing and tuning techniques for process plant and equipment

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions and includes knowledge of:

- analysis methods and tools
- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals
- power generation process plant and equipment, its location and operating parameters
- tuning and testing techniques and processes

- tuning parameters and settings
- typical arrangements of power production plant
- WHS/OHS legislation including:
 - safety procedures
 - emergency procedures
 - risk control measures
- workplace documentation
- workplace policies and procedures

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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