



Australian Government

UEPOPS505 Produce maintenance strategies for generation production plant

Release: 1

UEPOPS505 Produce maintenance strategies for generation production plant

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 undertake the establishment and implementation of maintenance strategies for power generation production plant. Generation production plant can include boilers, turbines, hydro equipment, electrical systems, control and monitoring systems, ash and dust systems, water treatment plant and fuel equipment.

A maintenance plan details the inspection, servicing, repairing or replacing of physical components of machines, plant and equipment used in power generation facilities through the implementation of a prescribed maintenance schedule. Strategies relate to what must happen to achieve the objectives outlined in the maintenance plan.

Competency in this unit requires the ability to research and plan for maintenance, establish strategies and implement strategies. Individuals will, in general, work under supervision, in a power generation facility as an operator with responsibility for maintenance planning and strategies.

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

UEPOPS425 Produce maintenance plans for generation production plant.

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Research and plan for strategies

PERFORMANCE CRITERIA

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

- 1.1** Existing maintenance strategies are reviewed, in accordance with workplace procedures and the maintenance plan
- 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 identified and applied
- 1.3** Business plans are reviewed, in accordance with workplace procedures, for impact on the maintenance plan and proposed work
- 1.4** Major maintenance activities are identified, in accordance with workplace procedures and the maintenance plan
- 1.5** Time frames for implementation and completion of maintenance strategies are established, in accordance with workplace procedures and the maintenance plan
- 1.6** Key indicators of maintenance strategy performance are defined, in accordance with workplace procedures and the maintenance plan
- 1.7** Budget is developed to identify maintenance costs, in accordance with workplace procedures
- 1.8** Legal implications of maintenance work to be undertaken are identified, in accordance with workplace procedures
- 1.9** Risk control measures are applied, in accordance with workplace procedures and maintenance plan
- 2.1** Resources to implement maintenance strategies are identified and obtained, in accordance with workplace

2 Establish strategies

procedures

2.2 Time frames and potential variances for maintenance scheduling are identified, in accordance with workplace procedures and maintenance plan

2.3 Any interdependence of maintenance activities is identified and documented, in accordance with workplace procedures and maintenance plan

2.4 Objectives for maintenance strategies are documented, in accordance with workplace procedures and maintenance plan

3 Implement strategies

3.1 Maintenance strategies are implemented, in accordance with workplace procedures, to facilitate outcomes

3.2 Variances in maintenance strategies are identified, in accordance with workplace procedures

3.3 Strategies are redeveloped or updated, in accordance with workplace procedures to satisfy outcomes

3.4 Opportunities for maintenance strategy enhancements are identified and documented, in accordance with workplace procedures, for inclusion in future strategy preparation

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 UEPOPS505B Produce maintenance strategies for generation production plant.

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 UEPOPS505 Produce maintenance strategies for generation production plant

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:

- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
 - emergency procedures
 - risk control measures
 - safe working practices
- establishing and implementing maintenance strategies
- implementing legislation, industry standards, codes of practice and regulations
- produce maintenance strategies
- researching and planning maintenance strategies using data analysis techniques and tools
- undertaking maintenance strategy development
- using manufacturers' specifications and manuals

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:

- legislation, industry standards, codes of practice and regulations
- maintenance work practices and planning principles
- manufacturers' specifications and manuals
- power generation plant and equipment, its location and operating parameters
- risk management techniques
- strategy development
- techniques for maintenance strategy development
- typical arrangements of power production plant
- WHS/OHS legislated requirements including:
 - emergency procedures
 - risk control measures

- safe working practices
- 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.

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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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