



**Australian Government**

# **UEPOPS319 Operate and monitor gas production plant**

**Release: 1**

# UEPOPS319 Operate and monitor gas 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 operate, inspect and monitor gas producing plant. Gas production plant is used for combustible gases which are fed into power turbines.

Competency in this unit requires the ability to plan work, operate compressed gas production plant, test compressed gas production plant, analyse compressed gas production plant faults, monitor and inspect compressed gas production plant and complete all documentation. Individuals will, in general, work under supervision, in a power generation facility as an operator.

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 Safety issues related to the operating and monitoring of gas production plant are identified, in accordance with workplace procedures and Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations and legislative requirements
- 1.2 Work requirements are identified from appropriate personnel and documentation, in accordance with workplace procedures
- 1.3 Documentation to determine gas production plant status is assessed and evaluated, in accordance with workplace procedures
- 1.4 Inspection and field preparation for gas production service are carried out, in accordance with workplace procedures and manufacturers recommendations
- 1.5 Gas production plant operational prerequisites are established, in accordance with workplace procedures and manufacturers' recommendations
- 1.6 Sequence for recommissioning of gas production plant is determined, in accordance with workplace procedures and site requirements

#### 2 Operate gas production plant

- 2.1 Gas production plant is operated, in accordance with workplace procedures and manufacturers' operating recommendations
- 2.2 Gas production plant is monitored and observed, in accordance with workplace procedures, to detect deviations from normal operating conditions
- 2.3 Corrective actions are taken to rectify abnormalities, in accordance with workplace procedures and manufacturers' recommendations

#### 3 Test gas production plant operation

- 3.1 Operational tests are performed, in accordance with workplace procedures
- 3.2 Gas production plant is observed for correct operational

|                                                   |            |                                                                                                                                                                                                        |
|---------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                   |            | response, in accordance with workplace procedures                                                                                                                                                      |
|                                                   | <b>3.3</b> | Corrective action is taken, in accordance with workplace procedures when response does not meet with documentation, gas production plant integrity or personnel safety requirements                    |
|                                                   | <b>3.4</b> | Gas production plant is returned to required operational status upon completion of test, in accordance with workplace procedures                                                                       |
| <b>4 Analyse gas production plant faults</b>      | <b>4.1</b> | Causes of abnormal gas production plant operating conditions are identified, in accordance with workplace procedures, and by analysing technical and operational information                           |
|                                                   | <b>4.2</b> | Corrective action is taken, in accordance with workplace procedures                                                                                                                                    |
|                                                   | <b>4.3</b> | Gas production plant integrity and personnel safety is maintained, in accordance with workplace procedures, and in consultation with appropriate personnel and technical and operational documentation |
| <b>5 Monitor and inspect gas production plant</b> | <b>5.1</b> | Gas production plant to be monitored and/or inspected is physically identified, in accordance with workplace procedures                                                                                |
|                                                   | <b>5.2</b> | Gas production plant is monitored and/or inspected, in accordance with workplace procedures, for normal operation or to detect deviations                                                              |
|                                                   | <b>5.3</b> | Corrective action is taken, in accordance with workplace procedures                                                                                                                                    |
|                                                   | <b>5.4</b> | Appropriate personnel are notified, in accordance with workplace procedures, when defects are detected                                                                                                 |
| <b>6 Complete documentation</b>                   | <b>6.1</b> | Gas production plant problems, movements, abnormalities and status are reported, in accordance with workplace procedures                                                                               |
|                                                   | <b>6.2</b> | Documentation is updated, 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 UEPOPS319B Operate and monitor gas 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 UEPOPS319 Operate and monitor gas production plant

## Modification History

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

## 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 gas production plant faults using data analysis techniques and tools
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
  - emergency procedures
  - risk control measures
  - safe working practices
- communicating with personnel
- completing documentation using recording procedures
- identifying gas production plant status
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- monitoring and inspecting gas production plant operations
- operating gas production plant
- organising resources
- preparing and planning work
- preparing gas production plant and/or equipment for operation
- recognising and responding to abnormal gas production plant operating conditions
- testing gas production plant operations using diagnostic and test techniques
- working with permit to work system

## 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:

- gas production plant and equipment, its location and operating parameters
- gas production plant status
- legislation, industry standards, codes of practice and regulations

- manufacturers' specifications and manuals
- permit to work system
- 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

Companion Volume implementation guides are found in VETNet -

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