



**Australian Government**

# **UEPOPS086 Operate and monitor compressed air systems**

**Release: 1**

# UEPOPS086 Operate and monitor compressed air systems

## Modification History

Release 1. This is the first release of this unit of competency in the UEP Electricity Supply Industry – Generation Sector Training Package Release 2.0.

## Application

This unit involves the skills and knowledge required to operate and monitor compressed air systems.

Compressed air is defined as air kept under a pressure that is greater than the atmospheric pressure. Compressed air is critical to the operation of plant in power generating facilities, such as air operated control valves and fabric filter cleaning systems.

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

Power generation plant operators are 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.

## 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.

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|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 Plan and prepare work</b>                      | <ul style="list-style-type: none"><li><b>1.1</b> Work health and safety (WHS)/occupational health and safety (OHS) regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, environmental requirements and workplace procedures are identified, applied and monitored</li><li><b>1.2</b> Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures</li><li><b>1.3</b> Documentation to determine compressed air system plant status is assessed and evaluated in accordance with workplace procedures</li><li><b>1.4</b> Inspection and field preparation for compressed air system plant service are carried out in accordance with manufacturers' recommendations and specifications, and workplace procedures</li><li><b>1.5</b> Compressed air system plant operational prerequisites are established in accordance with manufacturers' recommendations and specifications, and workplace procedures</li><li><b>1.6</b> Sequence for recommissioning of compressed air system plant is determined in accordance with workplace procedures</li></ul> |
| <b>2 Operate compressed air system plant</b>        | <ul style="list-style-type: none"><li><b>2.1</b> Compressed air system plant is operated in accordance with manufacturers' recommendations and specifications, and workplace procedures</li><li><b>2.2</b> Compressed air system plant is monitored and observed to detect deviations from normal operating conditions in accordance with workplace procedures</li><li><b>2.3</b> Corrective actions are taken to rectify compressed air system plant abnormalities in accordance with workplace procedures</li><li><b>2.4</b> Compressed air system plant is identified and removed from service in accordance with workplace procedures</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>3 Test compressed air system plant operation</b> | <ul style="list-style-type: none"><li><b>3.1</b> Operational tests are performed in accordance with workplace procedures</li><li><b>3.2</b> Compressed air system plant is observed for correct operational response in accordance with workplace</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|----------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                          |            | procedures                                                                                                                                                                                           |
|                                                          | <b>3.3</b> | Compressed air system plant is returned to required operational status upon completion of testing in accordance with workplace procedures                                                            |
| <b>4 Analyse compressed air system plant faults</b>      | <b>4.1</b> | Causes of abnormal compressed air system plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures                        |
|                                                          | <b>4.2</b> | Compressed air system plant integrity and personnel safety is maintained in consultation with relevant personnel and technical and operational documentation in accordance with workplace procedures |
| <b>5 Monitor and inspect compressed air system plant</b> | <b>5.1</b> | Compressed air system plant is monitored and inspected for normal operation and to detect deviations in accordance with workplace procedures                                                         |
|                                                          | <b>5.2</b> | Relevant personnel are notified when defects are detected in accordance with workplace procedures                                                                                                    |
| <b>6 Complete documentation</b>                          | <b>6.1</b> | Compressed air system 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 UEP Electricity Supply Industry – Generation Sector Training Package Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to UEPOPS320 Operate and monitor compressed air systems.

## 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 UEPOPS086 Operate and monitor compressed air systems

## Modification History

Release 1. This is the first release of this unit of competency in the UEP Electricity Supply Industry – Generation Sector Training Package Release 2.0.

## Performance Evidence

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

- analysing 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
- assessing compressed air system plant operation using diagnostic and testing techniques
- communicating effectively with relevant personnel
- completing documentation
- identifying compressed air system plant status
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- interpreting manuals
- monitoring and inspecting compressed air system plant operation
- operating compressed air systems
- organising resources
- planning and preparing work
- preparing compressed air system plant or equipment for operation
- recognising and responding to abnormal compressed air system plant operating conditions
- 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 and performance criteria and include knowledge of:

- arrangements of power production plant
- compressed air system plant and equipment, location and operating parameters
- compressed air system plant status

- manuals
- permit to work system
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- WHS/OHS requirements, including:
  - emergency procedures
  - risk control measures
  - safe working practices
- workplace documentation
- workplace policies and procedures.

## Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

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.

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 (PPE) currently used in industry
- applicable documentation, including workplace procedures, 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>