



Australian Government

UEPOPS313 Operate and monitor boiler draught system

Release: 1

UEPOPS313 Operate and monitor boiler draught system

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 boiler draught equipment.

Boiler draught is defined as the difference between atmospheric pressure and the pressure existing in a furnace or the flue gas passage of a boiler. Boiler draught is important to the smooth operation of all the systems in a power generating facility.

Competency in this unit requires the ability to plan work, operate boiler draught system plant, test boiler draught system plant, analyse boiler draught system plant faults, monitor and inspect boiler draught system 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.

1 Plan and prepare for boiler draught system operation

PERFORMANCE CRITERIA

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

- 1.1** Safety issues related to operating and monitoring boiler draught system 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 including work to permit are identified, in accordance with workplace procedures, from appropriate personnel and documentation
- 1.3** Documentation to determine boiler draught system plant status is assessed and evaluated, in accordance with workplace procedures
- 1.4** Inspection, preoperational checks and field preparations for boiler draught system plant service are carried out, in accordance with workplace procedures and manufacturers' recommendations
- 1.5** Boiler draught system plant operational prerequisites are established, in accordance with workplace procedures and manufacturers' recommendations
- 1.6** Sequence for recommissioning of boiler draught system plant is determined to suit existing circumstances in accordance with workplace procedures and site requirements

2 Operate boiler draught system plant

- 2.1** Boiler draught system plant is operated, in accordance with workplace procedures and manufacturers' operating recommendations
- 2.2** Boiler draught system 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, industry standards and site requirements

3 Test plant boiler draught system operation

- 3.1** Operational tests are performed, in accordance with workplace procedures

- 3.2** Boiler draught system plant is observed for correct operational response, in accordance with workplace procedures
 - 3.3** Corrective action is taken, in accordance with workplace procedures, when response does not meet with documentation, boiler draught system plant integrity or personnel safety requirements
 - 3.4** Boiler draught system plant is returned to required operational status upon completion of testing, in accordance with workplace procedures
- 4 Analyse boiler draught system plant faults**
 - 4.1** Causes of abnormal boiler draught system plant operating conditions are identified, in accordance with workplace procedures, by analysing technical and operational information
 - 4.2** Corrective action is taken, in accordance with workplace procedures
 - 4.3** Boiler draught system plant integrity and personnel safety is maintained, in accordance with workplace procedures, and in consultation with appropriate personnel and technical and operational documentation
- 5 Monitor and inspect boiler draught system plant**
 - 5.1** Boiler draught system plant to be monitored and/or inspected is physically identified, in accordance with workplace procedures
 - 5.2** Boiler draught system plant is monitored and/or inspected, in accordance with workplace procedures, for normal operation or to detect deviations
 - 5.3** Corrective action is taken, in accordance with workplace procedures
 - 5.4** Appropriate personnel are notified, in accordance with workplace procedures, when defects are detected
- 6 Complete documentation**
 - 6.1** Boiler draught system plant problems, movements and status are reported, in accordance with workplace procedures
 - 6.2** 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 UEPOPS313B Operate and monitor boiler draught system.

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 UEPOPS313 Operate and monitor boiler draught system

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 boiler draught system plant to identify and respond to abnormal boiler draught system plant operating conditions
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including
 - emergency procedures
 - safe working practices
 - risk control measures
- communicating with personnel
- completing documentation
- executing corrective actions for faults
- identifying boiler draught system plant faults using data analysis techniques and tools
- identifying boiler draught system plant status
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications, drawings and manuals
- isolating boiler draught system
- monitoring and inspecting boiler draught system plant operation including combustion, fans, air flow and control
- operating boiler draught system plant
- organising resources
- preparing boiler draught system plant and/or equipment for operation and planning work
- testing boiler draught system plant operation using diagnostic and test techniques
- using 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:

- boiler draught system plant and equipment, its location and operating parameters including combustion, fans, air flow and control
- boiler draught system plant status
- isolations requirements
- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications, drawings and manuals
- permit to work system
- typical arrangements of power production plant
- typical boiler draught system faults and corrective actions
- 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.

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

Companion Volume implementation guides are found in VETNet -

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