



Australian Government

UEPOPS093 Operate and monitor flue gas (NO_x) mitigation systems

Release: 1

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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 for the operation, inspection and monitoring of flue gas – Nitrogen Oxides (NOx) mitigation systems. NOx mitigation systems are used by coal, gas, oil and biomass fired, oil and gas fired gas turbines and combined cycle power generation facilities.

NOx are poisonous gases derived from nitrogen and oxygen combustion under high pressure and temperatures. NOx is composed of nitric oxide (NO), and a smaller percentage of more poisonous nitrogen dioxide (NO₂).

Competency in this unit requires the ability to plan work, carry out operation of NOx mitigation system, test NOx mitigation operation, analyse NOx mitigation system faults, inspect and monitor NOx mitigation system, and complete all documentation. Individuals will, in general, work under supervision, in a power generation facility as an operator.

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

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

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Plan and prepare work

- 1.1** 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
- 1.2** Work requirements, including permits, are identified from relevant personnel and documentation in accordance with workplace procedures
- 1.3** Inspection, preoperational checks and preparations for NOx mitigation service are carried out in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.4** NOx mitigation plant operational prerequisites are established in accordance with manufacturers' recommendations and specifications, and workplace procedures
- 1.5** Sequence for recommissioning of NOx mitigation plant is determined to suit existing circumstances in accordance with workplace procedures

2 Operate NOx mitigation plant

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

3 Test NOx mitigation plant operation

- 3.1** Operational tests are performed in accordance with workplace procedures
- 3.2** NOx mitigation plant is observed for correct operational response in accordance with workplace procedures
- 3.3** NOx mitigation plant is returned to required operational status upon completion of test in accordance with workplace procedures

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| 4 Analyse NOx mitigation plant faults | 4.1 | Causes of abnormal NOx mitigation plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures |
| | 4.2 | NOx mitigation plant integrity and personnel safety is maintained in consultation with relevant personnel and technical and operational documentation in accordance with workplace procedures |
| 5 Monitor and inspect NOx mitigation plant | 5.1 | NOx mitigation plant to be monitored and inspected is physically identified in accordance with workplace procedures |
| | 5.2 | NOx mitigation plant is monitored and inspected for normal operation and to detect deviations in accordance with workplace procedures, |
| | 5.3 | Relevant personnel are notified when defects are detected in accordance with workplace procedures |
| 6 Complete documentation | 6.1 | NOx mitigation 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 UEP Electricity Supply Industry – Generation Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS435 Operate and monitor flue gas (NOx) mitigation systems.

Links

Companion Volume implementation guides are found in VETNet -

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