



Australian Government

UETDRSB016 Maintain synchronous condensers

Release: 1

UETDRSB016 Maintain synchronous condensers

Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector Training Package Release 4.0.

Application

This unit includes the skills and knowledge required to maintain synchronous condensers in the electricity supply industry (ESI).

It includes synchronous condenser principles including, types, operating constraints, ratings, control systems, excitation and synchronising.

It also includes components, including starters, control and protection systems, substation fundamentals, cooling and lubrication systems.

Note: Entry into this unit is for users who:

- *hold the unit UETDREL005 Work safely in the vicinity of live electrical apparatus or equivalent,*
- and*
- *hold an Electrician licence or the equivalent issued in an Australian state or territory,*
- or*
- *hold an Electrician qualification or the equivalent issued in an Australian state or territory.*

This unit can be undertaken in conjunction with the qualification listed above, provided all requirements for completion of the Certificate III qualification are met prior to issuing this unit.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace.

Other conditions may also apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

Refer to Application.

Competency Field

Substation

Unit Sector

Not applicable.

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 Prepare to maintain synchronous condensers

- 1.1** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are reviewed and determined
- 1.2** Work plan is obtained, confirmed and communicated with relevant personnel in accordance with workplace requirements
- 1.3** Hazards are identified, risks assessed, and control measures identified and applied
- 1.4** Work is prioritised and sequenced for completion in accordance with work plan and workplace requirements
- 1.5** Plant, tools, equipment and personal protective equipment (PPE) required for work are determined, obtained and confirmed in working order
- 1.6** Liaison and communication issues with authorised personnel, authorities and clients are resolved to facilitate work, as required
- 1.7** Worksite is prepared in accordance with the work plan and workplace requirements

2 Maintain synchronous condensers

- 2.1** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are applied and monitored
- 2.2** Work permits are received and signed in accordance with workplace requirements
- 2.3** Lifting, working at heights, working in confined spaces and the use of plant, tools, equipment and PPE are carried out in accordance with workplace requirements

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| | 2.4 | Synchronous condensers are maintained in accordance with workplace requirements |
| | 2.5 | Incidents or unplanned events are responded to in accordance with workplace requirements |
| 3 | Complete work and documentation | |
| | 3.1 | Completed work is checked for compliance against the work plan and workplace requirements |
| | 3.2 | Work permits are signed off in accordance with workplace requirements |
| | 3.3 | Worksite is rehabilitated, cleaned and made safe in accordance with workplace requirements |
| | 3.4 | Plant, tools and equipment are cleaned, checked and returned to storage, and surplus resources and materials are managed in accordance with workplace requirements |
| | 3.5 | Work records, reports and documentation are completed, and where relevant, appropriate personnel notified in accordance with workplace requirements |

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 UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is not equivalent to UETTDRSB31 Maintain high voltage power system synchronous condensers.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>

