



Australian Government

UETDRDS028 Prepare and manage construction plans for electrical infrastructure

Release: 1

UETDRDS028 Prepare and manage construction plans for electrical infrastructure

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 prepare and manage detailed construction plans for electrical infrastructure in the electricity supply industry (ESI).

It includes purpose and requirements of the construction plan, compliance, project and workplace requirements, and health and safety risks.

It also includes construction diagrams and drawings, the fundamentals of computer-aided drafting.

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

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0021 Solve problems in magnetic and electromagnetic devices

UETDREL005 Work safely in the vicinity of live electrical apparatus

Competency Field

Design

Unit Sector

Not applicable.

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 to prepare and manage construction plans for electrical infrastructure

- 1.1** Purpose and requirements of the construction plan are established
- 1.2** Requirements for site inspections are determined in accordance with workplace requirements
- 1.3** Tools, equipment and personal protective equipment (PPE) required for site inspections are determined, obtained and confirmed in working order
- 1.4** Work is prioritised and sequenced for completion in accordance with workplace requirements

2 Prepare and manage construction plans for electrical infrastructure

- 2.1** Site inspection is performed
- 2.2** Construction plans are prepared and managed in accordance with workplace requirements
- 2.3** Construction plan is checked for compliance against legislation, regulations, standards and codes of practice
- 2.4** Health and safety risks are identified and minimised or eliminated by using safety and control measures in the planning process
- 2.5** Quality checks of work are undertaken in accordance with workplace requirements

3 Complete work and documentation

- 3.1** Completed work is checked against project and workplace requirements
- 3.2** Work records, reports and documentation are completed, approved and 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 UETDRDS014 Prepare and manage detailed construction plans for electrical power system infrastructure.

Links

Companion Volume Implementation Guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>

Assessment Requirements for UETDRDS028 Prepare and manage construction plans for electrical infrastructure

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two (2) separate occasions and include:

- determining purpose and requirements of the construction plan
- obtaining, inspecting and using relevant personal protective equipment (PPE) for site inspection
- determining requirements for site inspections in accordance with workplace requirements
- prioritising and sequencing work for completion in accordance with workplace requirements
- checking construction plan for compliance against legislation, regulations, standards and codes of practice
- identifying, and minimising or eliminating health and safety risks by using safety and control measures
- performing ongoing quality checks of work in accordance with workplace requirements
- checking final construction plan against project and workplace requirements
- maintaining work records, reports and documentation
- preparing six (6) construction plans that relate to at least three (3) of the following design types:
 - overhead line
 - underground cable
 - distribution substation
 - transmission substation
 - sub-transmission substation
 - public lighting
 - zone substation
 - customer substation.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- preparation of construction plans, including:

- purpose and requirements of the construction plan
- types and application of PPE
- hazard, risk assessment and risk control requirements, including potential hazard
- site inspections
- compliance against legislation, regulations, standards and codes of practice, and project and workplace requirements
- work records, reports and documentation maintenance
- construction diagrams and drawings
- transmission and sub-transmission system layout
- distribution system layout.

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 conditions involving realistic and authentic activities that replicate operational 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:

- relevant and appropriate materials, tools, facilities, equipment and PPE currently used in industry for detailed construction plans for electrical system infrastructure
- applicable documentation, including workplace requirements, relevant industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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