



Australian Government

TLIC4073 Set up, operate and shut down a distributed power system

Release: 2

TLIC4073 Set up, operate and shut down a distributed power system

Modification History

Release 2. This is the second release of this unit of competency in the TLI Transport and Logistics Training Package:

- Minor terminology changes in Performance Criteria
- Minor statement changes in Performance Evidence
- Minor statement changes in Knowledge Evidence
- Minor statement changes in Assessment Conditions.

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to set up, operate and shut down a distributed power system in accordance with workplace procedures, relevant codes of practice and rail network standards.

It includes setting up a remote control system; setting up a lead control system; and operating, monitoring and shutting down a distributed power system.

Distributed power refers to the physical distribution, at intermediate points throughout the length of a train, of separate motive power units. Such motive power units may be single units or multiple consists, remotely-controlled from the lead locomotive.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

C – Vehicle Operation.

Unit Sector

Rail sector.

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1 Prepare train for set up of distributed power system

- 1.1** Distributed motive power units are positioned as required in train consist
- 1.2** Hazards are identified, risks are assessed and risk control measures are implemented
- 1.3** Train sections are marshalled to form one train as required

2 Set up remote distributed motive power units

- 2.1** Distributed power is set up on all remote units
- 2.2** Distributed power system is tested in accordance with manufacturer instructions and/or workplace policies and procedures ready for linking with lead control unit
- 2.3** Start-up procedures for remote distributed motive power units are followed in accordance with manufacturer instructions and/or workplace policies and procedures

3 Set up lead distributed motive power units

- 3.1** Distributed power system is set up by conditioning/activation of required systems
- 3.2** Distributed power system is tested in accordance with manufacturer instructions and/or workplace policies and procedures
- 3.3** Start-up procedures for lead distributed motive power unit are followed in accordance with manufacturer instructions and/or workplace policies and procedures
- 3.4** Full control of distributed motive power units is established after linking process has been completed and required function tests have been conducted

4 Operate and monitor distributed power train

- 4.1** Distributed power system is operated and monitored during train operation to ensure safe train handling and control in accordance with operational requirements
- 4.2** Operational difficulties/faults are identified and rectified ensuring operational safety and efficiency
- 4.3** Shut down procedures for distributed motive power units are followed in accordance with manufacturer instructions and/or workplace policies and procedures

5 Shut down distributed

- 5.1** Distributed power train is secured against movement, as

power systems

required, prior to system shut down

- 5.2** Shut down procedures for distributed motive power system are followed in accordance with manufacturer instructions and/or workplace policies and 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.

Unit Mapping Information

This unit replaces and is equivalent to TLIC4073A Set up, operate and shut down a distributed power system.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIC4073 Set up, operate and shut down a distributed power system

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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 one occasion and include:

- identifying job hazards and taking required actions to minimise, control or eliminate identified hazards
- monitoring equipment performance
- operating and adapting to differences in distributed power system equipment in accordance with workplace operating procedures
- reading, interpreting and following relevant workplace procedures, instructions, information and signs
- reporting and/or rectifying identified distributed power system problems, faults or malfunctions promptly in accordance with regulatory requirements and workplace procedures
- setting up, operating and shutting down a distributed power system.

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:

- applicable state/territory legislated rail safety requirements, codes of practice and/or guidelines
- controls, instruments and indicators of a distributed power system and their purpose, location and use
- critical distributed power system control information, including:
 - ancillary systems
 - braking
 - compatible coupling

- drive equipment
- manufacturer instructions for distributed power units
- distributed power system documentation requirements
- procedures for:
 - distributed power system
 - identifying equipment defects in distributed power system and assessing identified defective units for appropriate actions
 - managing hazardous situations involving distributed power system
- rail network standards
- relevant work health and safety (WHS)/occupational health and safety (OHS) legislation, regulations, codes of practice, 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 rail corridor 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 simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation including workplace procedures, regulations, rail network standards, codes of practice and operation manuals.

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