



Australian Government

TLIS3010 Test rail using ultrasonic equipment

Release: 1

TLIS3010 Test rail using ultrasonic equipment

Modification History

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 test plain rail and field welds using ultrasonic equipment in accordance with rail industry standards, safeworking and regulatory requirements, and workplace procedures.

It includes determining test requirements, conducting testing using hand directed equipment, conducting visual examination and measurement of welds, identifying and classifying defects, and completing all required documentation.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under some supervision, generally within a team environment. It involves the application of routine operational principles and procedures when testing rail using ultrasonic equipment, as part of workplace activities across a variety of operational contexts within the Australian rail system.

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

Pre-requisite Unit

Not applicable.

Competency Field

S – Construction and Installation

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

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

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| 1 Determine test requirements | <ul style="list-style-type: none">1.1 Hazards are identified, risks are assessed and control measures are implemented1.2 Test site is identified and prepared using appropriate procedures and materials1.3 Preparation processes are carried out in accordance with relevant procedures, statutory and work health and safety (WHS)/occupational health and safety (OHS) requirements |
| 2 Conduct testing using hand directed equipment | <ul style="list-style-type: none">2.1 Most appropriate ultrasonic test for the application is selected2.2 Testing equipment is selected and prepared in accordance with rail industry standards and workplace procedures2.3 Ultrasonic test is carried out in accordance with relevant standards, specifications and WHS/OHS requirements2.4 Ultrasonic testing equipment is checked for proper function, maintained and stored in accordance with procedures, WHS/OHS requirements and manufacturer instructions |
| 3 Conduct visual examination and measurement of rail and welds | <ul style="list-style-type: none">3.1 Rail and welds are visually assessed for obvious defects3.2 New welds are assessed for alignment and adjustment tolerance in accordance with standards and/or procedures3.3 Weld repairs are assessed for alignment tolerance in accordance with standards and/or procedures |
| 4 Identify and classify defects | <ul style="list-style-type: none">4.1 Indications are assessed and defects detected in accordance with standards and/or procedures4.2 Defects are classified in accordance with standards and/or procedures4.3 Defective welds and weld repairs are marked in accordance with standards and/or procedures |
| 5 Complete documentation | <ul style="list-style-type: none">5.1 Test results are reported in accordance with standards and/or procedures5.2 Documentation requirements are confirmed, in accordance with workplace procedures5.3 Documentation is filled in legibly and proofread |

5.4 Documentation is processed 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 can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLIS3010A Test rail using ultrasonic equipment.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>