



Australian Government

Assessment Requirements for TLIW0036 Apply electric welding process to rail

Release: 1

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Modification History

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

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 five** separate occasions and include:

- applying relevant workplace procedures
- ensuring weld conformance to organisational requirements
- identifying job hazards and taking required action to minimise, control or eliminate identified hazards
- implementing contingency plans
- interpreting and following operational instructions and prioritising work when welding rail using an electric welding process
- modify activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with operating procedures
- performing welding, grinding, gouging and testing operations on rails, crossings and switches in accordance with rail industry standards and/or workplace requirements
- preparing items for welding in accordance with workplace requirements
- reading and interpreting relevant technical data, drawings, instructions and manuals
- reporting and rectifying problems, faults and malfunctions within limits of own role, in accordance with organisational procedures
- selecting and using hand tools, power tools and equipment
- selecting and using required personal protective equipment
- using non-destructive (liquid penetrant or magnetic particle) testing equipment, gouging equipment and hand grinding equipment in accordance with safety data sheets (SDSs)/material safety data sheets (MSDSs), manufacturer instructions and workplace procedures
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

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:

- authorisation/approval processes and procedures
- documentation and record keeping requirements
- fundamentals of track and components
- hazards that may exist when welding rail using an electric welding process and ways of controlling the risks involved
- problems that may occur when welding rail using an electric welding process and action that can be taken to report or resolve these problems
- rail industry acceptance standards for weld repairs on rail
- relevant rail danger zones
- relevant safety, work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations
- track industry standards for rail, crossing and switch condition and surface profile
- workplace procedures, safety data sheets (SDSs)/material safety data sheets (MSDSs) and manufacturer instructions for non-destructive (liquid penetrant or magnetic particle) testing of rail
- workplace procedures for removing defects by gouging, grinding and welding rail using an electric welding process.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

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Assessment must occur in workplace operational situations or, where this is not available, 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 include:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including workplace procedures, regulations, rail industry standards, SDSs/MSDSs, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet -

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