



Australian Government

UEGNSG048 Conduct butt fusion of large diameter polyethylene gas pipeline systems

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEG Gas Industry Training Package.

Application

This unit involves the skills and knowledge required to butt fuse large diameter polyethylene (PE) gas pipeline systems.

It includes preparing to weld PE pipe, handling, jointing, constructing and welding PE gas distribution mains. It also includes gas distribution, gathering lines, secondary mains (high pressure) and gas transmission line work and completing relevant documentation.

This unit applies to large PE pipe diameter greater than 180 mm.

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

Pre-requisite Unit

Not applicable.

Competency Field

Gas Distribution

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to weld PE pipe

PERFORMANCE CRITERIA

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

- 1.1** Workplace safety, environmental and sustainable energy practices for the site are identified, obtained and understood

- 1.2 Job requirements are obtained and interpreted from plans, specifications and instructions
 - 1.3 Relevant job requirements and workplace procedures for work activities are discussed with relevant person/s, including third parties, to determine and confirm work schedule and respective responsibilities
 - 1.4 Hazards are identified, workplace safety and environmental risks are assessed, and control measures are prioritised, implemented and monitored in accordance with workplace procedures
 - 1.5 Scope of responsibility under the relevant job requirements, including all work permits and/or relevant notifications, is determined and confirmed to access the services and perform work in accordance with job requirements and workplace procedures
 - 1.6 Equipment, tools and personal protective equipment (PPE) needed to carry out work activities are identified, obtained and checked for correct operation and safety in accordance with workplace procedures and manufacturer instructions
 - 1.7 Materials, plans, diagrams, drawings and resources required for work are confirmed and obtained in accordance with workplace procedures
 - 1.8 Pre-start test weld sample is prepared in accordance with workplace procedures
- 2 **Construct and weld PE gas distribution mains**
 - 2.1 Workplace safety and environmental risk control measures, schedule of work and workplace procedures for carrying out work are followed
 - 2.2 Appropriate materials, tools and equipment are selected and used safely in accordance with manufacturer instructions and workplace procedures
 - 2.3 Unsuitable or damaged materials, including improperly stored materials, are rejected/rectified and reported in accordance with workplace procedures
 - 2.4 Work is completed within agreed timeframe and to industry standards in accordance with job requirements and workplace procedures
 - 2.5 Unplanned events are referred to the relevant person/s

- for directions in accordance with workplace procedures
- 2.6 Welding and laying of polyethylene gas distribution mains are conducted in accordance with relevant industry standards and workplace procedures
 - 2.7 Faults and operational conditions of the components are identified, repaired or replaced, and reported in accordance with organisational job requirements
 - 2.8 Welds quality check of work and testing of pipework is carried out in accordance with industry standards, work instructions and workplace procedures
- 4 Complete work and relevant documentation**
- 3.1 Workplace safety risk control measures for work completion are followed
 - 3.2 Quality and safety checks of the work are conducted in accordance with job requirements, workplace procedures and community and industry standards
 - 3.3 Worksite is cleaned, reinstated and made safe in accordance with workplace procedures
 - 3.4 Tools, equipment and any surplus resources/materials are cleaned, checked and securely stored in accordance with workplace procedures
 - 3.5 Incidents are reported and followed up as required in accordance with workplace procedures
 - 3.6 Relevant person/s is notified of work completion in accordance with workplace procedures
 - 3.7 Work completion documentation is completed accurately and provided to relevant person/s 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 may be found in the UEG Gas Industry Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit supersedes and is equivalent to UEGNSG200 Conduct butt fusion of large diameter polyethylene gas pipeline systems.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6a6c032e-ffcb-4f3d-8063-415efbd261e8>