



Australian Government

UEGNSG330 Coat metallic pipelines

Release: 1

UEGNSG330 Coat metallic pipelines

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 inspect and test coating, and coat metallic pipelines in a utilities industry workplace, and complete work and relevant documentation in accordance with relevant legislations, codes of practice, regulations and workplace procedures.

It includes the use of testing and application equipment, applying the coating, undertaking coating defect assessment surveys and safe handling of chemicals/flammable liquids.

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

Pre-requisite Unit

Not applicable

Competency Field

Utilities

Unit Sector

Utilities Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to coat metallic pipelines

PERFORMANCE CRITERIA

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

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) workplace procedures and environmental measures for the site are identified, obtained and applied
- 1.2** Job requirements and workplace procedures for the work are obtained and discussed with relevant person/s

to confirm the work schedule

- 1.3** WHS/OHS, environmental and sustainable energy policies and procedures are obtained and applied in accordance with workplace procedures
- 1.4** Hazards are identified and reported to relevant person/s to assess risks and control measures implemented in accordance with workplace procedures
- 1.5** Scope of work and level of responsibility under the relevant work permits and/or relevant notifications are obtained and confirmed with relevant person/s in accordance with job requirements and workplace procedures
- 1.6** Equipment, plant, tools and personal protective equipment (PPE) required to coat metallic pipelines are identified, obtained and checked for operation and safety in accordance with workplace procedures and manufacturer instructions
- 1.7** Relevant person/s are consulted to ensure the work is coordinated effectively with others involved
- 1.8** Materials, plans, diagrams, drawings and resources required for the job are obtained and interpreted in accordance with workplace procedures
- 1.9** Responsibilities for first aid, emergencies and other related work safety procedures for an incident at the work site are checked and confirmed with relevant person/s
- 1.10** Third-party issues are referred to relevant person/s in accordance with workplace procedures
- 1.11** Site preparation, safety plan and work schedule are confirmed with relevant person/s in accordance with workplace procedures

2 Coat metallic pipelines

- 2.1** WHS/OHS and environmental risk control measures, schedule of work and workplace procedures for carrying out the work are followed
- 2.2** Materials, tools, plant, equipment and measuring devices are selected and used correctly and safely in accordance with manufacturer instructions and workplace procedures

- 2.3 Hazardous activities are conducted safely in accordance with WHS/OHS workplace procedures and job instructions
 - 2.3 Existing pipeline coatings are visually inspected to determine condition in accordance with workplace procedures
 - 2.4 Pipeline coating is tested using correct equipment to determine its condition in accordance with job requirements and workplace procedures
 - 2.5 Pipeline is prepared for coating in accordance with workplace procedures
 - 2.6 Pipeline is coated using correct equipment and materials in accordance with workplace procedures
 - 2.7 Work is carried out to the required standard, without waste of materials or damage to apparatus, circuits, and the surrounding environment or services using sustainable energy principles
 - 2.8 Hazard warnings and safety signs are recognised, hazards are assessed and WHS/OHS risks and incidents are reported to authorised person/s for directions in accordance with workplace procedures
 - 2.9 Unplanned events are referred to authorised person/s for directions in accordance with workplace procedures
 - 2.10 Quality checks of the work are undertaken in accordance with job instructions, industry standards and regulations
- 3 Complete work and relevant documentation**
- 3.1 WHS/OHS and environmental risk control measures for work completion are followed
 - 3.2 Relevant persons are notified of work completion in accordance with workplace procedures
 - 3.3 Work site is rehabilitated, cleaned up and made safe in accordance with workplace procedures
 - 3.4 Waste materials are disposed of safely in accordance with environmental policies and procedures
 - 3.5 Tools, equipment and any surplus resources and materials are cleaned, checked and securely stored in accordance with workplace procedures

- 3.6** Work completion documentation is completed 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 replaces and is equivalent to UEGNSG330A Coat Metallic Pipelines.

Links

Companion Volume Implementation Guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6a6c032e-ffcb-4f3d-8063-415efbd261e8>

Assessment Requirements for UEGNSG330 Coat metallic pipelines

Modification History

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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 separate occasions and include:

- applying controls for stray, static and induced electrical faults
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - actioning and reporting accidents and incidents
 - environmental legislative requirements associated with the use, application and disposal of coating materials
 - hazard identification and reporting
 - implementing risk control measures
 - recognising and assessing hazard warnings and safety signs
 - safe handling procedures for a range of dangerous and toxic chemicals and compounds
 - selecting and using the correct personal protective equipment (PPE)
 - undertaking hazardous activities in a safe manner
- applying relevant industry standards, guidelines, codes of practice and regulations
- applying sustainable energy and environmental principles and practices
- assessing coating and application defects
- coating metallic pipelines
- communicating effectively with relevant person/s
- completing work and relevant documentation
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following manufacturer instructions
- following workplace procedures
- minimising and disposing of waste correctly
- obtaining and interpreting relevant plans, drawings, maps, diagrams and schedules
- obtaining job requirements, work instructions, safety plan and work schedule
- performing quality checks
- performing visual inspection of pipeline coatings
- preparing to coat metallic pipelines

- referring third-party issues
- rehabilitating and maintaining a clean and safe work site
- selecting and using relevant materials and measuring devices
- selecting and operating correct tools, plant and equipment, including:
 - abrasive blast comparators
 - abrasive blasting equipment
 - densitometers
 - heating torch
 - low voltage/high voltage holiday detectors
 - paint thickness coating gauges and meters
 - pipe wrapping machines
 - spray painting equipment
- testing pipeline coatings.

Knowledge Evidence

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

- cathodic protection, including:
 - faults and effects
 - stray electrical currents
 - damage to coatings
- controls for stray, static and induced electrical faults
- effective communication techniques
- environmental and sustainable energy principles and practices
- first aid, emergency and safety procedures for incidents
- pipeline coating application
- pipeline coating defect assessment methods
- pipeline coating irregularities, deviations or problems
- pipeline preparation/stripping
- pipeline coating types and applications, including:
 - petroleum based wraps
 - epoxy
 - paints
 - polyethylene (PE) jackets and sleeves
 - coal tar enamel
 - rock (protection) jacket
- problem-solving techniques
- quality checks
- relevant industry standards, legislation, guidelines, codes of practice and regulations

- relevant manufacturer instructions
- relevant materials, plans, diagrams, drawings and resources
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant safety and environmental hazards and mitigation measures, including:
 - requirements of coating substance
 - safety issues of working in trenches, excavations and confined spaces
 - safety data sheets (SDS)
 - hazards and risk assessments
 - hazardous activities in the workplace
 - emergency control measures
 - hazard warnings and safety signs
- relevant tools, equipment, measuring devices and PPE
- relevant WHS/OHS legislated requirements
- relevant WHS/OHS policies and procedures
- relevant work permits/notifications
- relevant workplace documentation
- relevant workplace policies and procedures
- site preparation, safety plans, job requirements and work schedules
- techniques to minimise waste
- testing pipeline coatings
- third-party issues
- work site rehabilitation.

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 where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate 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 other simulations
- relevant and appropriate materials, tools, equipment and PPE currently used in industry
- applicable documentation, including workplace procedures, equipment specifications,

regulations, codes of practice and operation manuals.

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