



Australian Government

RIICTT304E Undertake on-line replacement for existing pipeline systems

Release: 1

RIICTT304E Undertake on-line replacement for existing pipeline systems

Modification History

This unit replaces RIICTT304D Undertake on-line replacement for existing pipeline systems. Minor endorseable amendments have been made to Elements, Performance Criteria, Foundation Skills, Performance Evidence and Knowledge Evidence to better reflect current industry practices and clarify training outcomes.

Application

This unit develops the skills and knowledge required to undertake on-line replacement for existing pipeline systems in civil construction.

It applies to those working in operational roles. They generally work under supervision and hold some responsibility over undertaking on-line replacement for existing pipeline systems.

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

Unit Sector

Civil construction

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for on-line replacement for existing pipeline systems	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation for on-line replacement for existing pipeline systems and confirm work activity is compliant 1.3 Identify environmental issues and potential hazards, and assess and address risks within scope of own role and according to workplace procedures 1.4 Select and wear personal protective equipment required for work activities 1.5 Complete induction procedures as required by workplace policies and procedures and job role requirements 1.6 Identify, obtain and implement signage requirements from the project traffic management plan

ELEMENT	PERFORMANCE CRITERIA
	1.7 Identify and select plant, tools and equipment required for task, check for serviceability and rectify and report any faults as required
2. Survey site	2.1 Notify and obtain approval from property owners and occupiers for entry onto their property 2.2 Determine site conditions by visual inspection, plans, discussion with land owners and information from service utilities 2.3 Locate underground utilities according to job and workplace requirements 2.4 Record existing site conditions according to job and workplace requirements
3. Initiate rehabilitation work	3.1 Prepare entry and exit pits where specified 3.2 Identify, interpret and apply required confined space entry procedures 3.3 Monitor process and confirm conformity to the design requirements 3.4 Maintain system serviceability during rehabilitation works
4. Undertake on-line replacement	4.1 Determine fault with the aid of plans, drawings, CCTV recordings and other mechanisms as required 4.2 Select on-line replacement method required for fault 4.3 Remove existing pipeline structure designated for replacement 4.4 Pull new pipe structure into place 4.5 Install replacement components as required 4.6 Conduct curing process according to work requirements 4.7 Secure and seal termination at ends of process 4.8 Open junctions for inspection and operation 4.9 Monitor installation process and confirm finished product conforms to the design requirements
5. Clean up	5.1 Clear work area and dispose of, reuse and recycle materials as required 5.2 Clean, check, perform maintenance on and store plant, tools and equipment and report issues as required or address within scope of own role 5.3 Finalise and process written records according to workplace requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Reading	Identifies and interprets information from at times complex workplace procedures, documentation, legislation and regulations
Writing	Records simple and routine information relating to work activities

Unit Mapping Information

Supersedes and is equivalent to RIICTT304D Undertake on-line replacement for existing pipeline systems.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIICTT304E Undertake on-line replacement for existing pipeline systems

Modification History

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- undertake on-line replacement for existing pipeline systems on at least two occasions including at least two different on-line replacements for existing pipeline systems.

During the above, the candidate must:

- locate, apply and retain on site access to documentation, policies and procedures required for undertaking on-line replacement for existing pipeline systems
- implement the requirements, procedures and techniques for the completion of on-line replacements for existing pipeline systems, including:
 - determining site conditions and locating underground utilities
 - determining pipeline faults and required on-line replacement method
 - completing housekeeping activities
- work with others to complete on-line replacement for existing pipeline systems that meets required outcomes, including:
 - using a range of communication techniques and equipment to convey information to others
 - maintaining written and verbal reporting requirements and procedures
 - organising work activities to meet all task requirements
- identify, obtain, confirm and apply work, safety and signage instructions and requirements.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- civil construction terminology relevant to on-line replacement of pipeline systems
- engineering drawings, plans and specifications required for undertaking on-line replacement for existing pipeline systems
- materials safety data sheets and materials handling methods
- pipeline systems

- key risks relating to undertaking on-line replacement for existing pipeline systems, including those associated with:
 - traffic
 - live electrical services
 - confined spaces
 - falls
 - locating near other works in progress
 - manual handling
 - gas
- key policies and procedures, legislation and established requirements for undertaking on-line replacement for existing pipeline systems, including those for:
 - site isolation and traffic control responsibilities
 - workplace health and safety
 - site condition assessments
 - locating underground utilities
 - confined space entry procedures
 - waste disposal and recycling
- key factors affecting work activities described in performance evidence above, including:
 - on-line replacement methods
 - fault types
 - laser control equipment techniques
 - manual handling techniques
 - curing process
 - working in a road reserve
 - equipment types, characteristics, technical capabilities and limitations.

Assessment Conditions

Mandatory conditions Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - equipment required to undertake on-line replacement for existing pipeline systems
 - personal protective equipment
- be conducted in a safe environment; and,
- be assessed in context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

- Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sectors workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

Assessor Requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory competency standards as set out in the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing a high level of RII training product knowledge
- having an understanding and knowledge of legislations and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.
- It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must hold the relevant vocational competencies and have current industry skills directly relevant to the training and assessment being provided and must work alongside a trainer and/or assessor to conduct the assessment. This means the industry subject matter expert should hold the unit being assessed (or an equivalent unit), and must also demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF** Level	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive	3-6	3 Years

(Quarrying)		
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this unit of competency is being assessed outside of the resources and infrastructure sectors assessor and/or industry subject matter expert experience should be in line with industry standards for the sector in which it is being assessed and where no industry standard is specified should comply with any relevant regulation.	

*Guidance on simulated environments has been stipulated in the RII Companion Volume Implementation Guide located on VETNet.

**Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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