



**Australian Government**

# **RIICTT309E Install slip lining in existing pipeline systems**

**Release: 1**

## RIICTT309E Install slip lining in existing pipeline systems

### Modification History

This unit replaces RIICTT309D Install slip lining in 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 installing slip lining in existing pipeline systems in civil construction.

It applies to those working in operational roles. They generally work under supervision and hold some responsibility over installing slip lining in 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 to install slip lining in existing pipeline systems | <ul style="list-style-type: none"><li>1.1 Obtain, interpret and confirm work requirements</li><li>1.2 Access, interpret and apply documentation and procedures for installation of slip lining in existing pipeline systems and confirm work activity is compliant</li><li>1.3 Identify environmental issues and potential hazards, and assess and address risks within scope of own role and according to workplace procedures</li><li>1.4 Select and wear personal protective equipment required for work activities</li><li>1.5 Complete induction procedures as required by workplace policies and procedures and job role requirements</li><li>1.6 Identify, obtain and implement signage requirements from the project traffic management plan</li><li>1.7 Identify and select plant, tools and equipment, check</li></ul> |

| ELEMENT                          | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | for serviceability and rectify and report any faults as required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2. Perform site survey           | 2.1 Notify and obtain approval from property owners and occupiers for entry onto their property<br>2.2 Determine site conditions by visual inspection, plans, discussion with land owners and information from service utilities<br>2.3 Locate underground utilities according to job and workplace requirements<br>2.4 Record existing site conditions according to job and workplace requirements                                                                                                                                                              |
| 3. Initiate rehabilitation works | 3.1 Prepare entry and exit pits where specified<br>3.2 Identify, interpret and apply required confined space entry procedures<br>3.3 Monitor process and confirm conformity to design requirements<br>3.4 Maintain system serviceability during rehabilitation works                                                                                                                                                                                                                                                                                             |
| 4. Undertake slip-lining         | 4.1 Determine fault with the aid of plans, drawings, CCTV recordings and other mechanisms as required<br>4.2 Select slip-lining method required for fault<br>4.3 Apply pressure cleaning to the designated location<br>4.4 Spiral and push liner as required into the existing pipe<br>4.5 Install slip-lining material according to work requirements<br>4.6 Secure and seal termination at ends of process<br>4.7 Open junctions for inspection and operation<br>4.8 Monitor installation process and confirm finished product conforms to design requirements |
| 5. Clean up                      | 5.1 Clear work area and dispose of, reuse and recycle materials as required<br>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                                                                                                                                                                                                                                                                                                                                   |

## 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 | <ul style="list-style-type: none"><li>Identifies and interprets information from at times complex workplace procedures, documentation, legislation and regulations</li></ul> |
| Writing | <ul style="list-style-type: none"><li>Records simple and routine information relating to work activities</li></ul>                                                           |

## Unit Mapping Information

Supersedes and is equivalent to RIICTT309D Install slip lining in 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 RIICTT309E Install slip lining in existing pipeline systems

## Modification History

This unit replaces RIICTT309D Install slip lining in 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.

## 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:

- install slip lining in existing pipeline systems on at least two occasions including at least two different installations of slip lining for existing pipeline systems.

During the above, the candidate must:

- locate, apply and retain on site access to documentation, policies and procedures required for installing slip lining in existing pipeline systems
- implement the requirements, procedures and techniques for installing slip lining in existing pipeline systems, including:
  - determining site conditions and locating underground utilities
  - determining pipeline faults and required repair and sealing method
  - complete housekeeping activities
- work with others to install slip-lining in existing pipeline systems that meets the 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:

- safety data sheets and materials handling methods
- principles for pipeline systems relevant to trenchless technology
- civil construction terminology relevant for installing slip lining in existing pipeline systems
- drawings, plans and specifications required for installing slip lining in existing pipeline systems

- key risks relating to installing slip lining in 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 installing slip lining in existing pipeline systems, including those for:
  - site isolation and traffic control
  - workplace health and safety
  - confined space entry
  - site condition assessments
  - locating underground utilities
  - waste disposal and recycling
- key factors affecting work activities described in performance evidence above, including:
  - slip lining methods
  - fault types
  - laser control equipment techniques
  - manual handling techniques
  - equipment types, characteristics, technical capabilities and limitations
  - working in a road reserve
  - pressure cleaning methods.

## Assessment Conditions

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

- include access to:
  - equipment required to install slip lining in 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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