



Australian Government

RIICBM304E Operate bridge inspection units

Release: 1

RIICBM304E Operate bridge inspection units

Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to operate bridge inspection units in civil construction. This includes operating a self-propelled or truck-mounted under bridge inspection unit to carry out bridge inspection and maintenance tasks.

It applies to those working in operational roles. They generally work under minimal supervision to undertake a broad range of tasks in varied work contexts, using some discretion and judgement in selecting equipment, services or contingency measures.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

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. Plan and prepare to operate a bridge inspection unit	1.1 Obtain, interpret, clarify and confirm work instructions 1.2 Access, interpret and apply documentation required to operate bridge inspection units and confirm work activity is compliant 1.3 Obtain and interpret emergency procedures, and identify steps required to respond to emergencies 1.4 Select and wear personal protective equipment according to site requirements 1.5 Confirm and identify requirements for complying with environmental protection safety and traffic management signage requirements

ELEMENT	PERFORMANCE CRITERIA
	1.6 Identify, address and report environmental issues, potential hazards and risks 1.7 Select plant, tools and equipment required to carry out tasks and check for faults 1.8 Identify, confirm, and locate materials required for work application
2. Check bridge inspection equipment	2.1 Check tyres and rollers for faults 2.2 Carry out start-up procedures according to job requirements 2.3 Check equipment controls and functions, including implements and attachments, brakes and manoeuvrability for serviceability and report any faults 2.4 Check and confirm emergency safety devices
3. Set up bridge inspection unit	3.1 Evaluate work activity and identify the required operating technique according to job and site requirements 3.2 Unfold platform and prepare for use 3.3 Position bridge inspection unit for work application and engage stabilisers to set equipment base level into place according to job requirements 3.4 Place tools, equipment and materials onto platform 3.5 Enter platform 3.6 Attach fall arrest device according to manufacturer and safety requirements
4. Conduct bridge inspection	4.1 Manoeuvre bridge inspection unit to work location and manoeuvre platform into position according to job requirements 4.2 Perform bridge inspection according to job requirements 4.3 Avoid obstacles 4.4 Communicate location adjustment requirements to driver 4.5 Operate controls to return bridge inspection unit to travel position and conduct shutdown sequence according to job requirements
5. Carry out operator maintenance	5.1 Conduct inspection and fault finding according to job requirements 5.2 Carry out and record regular programmed maintenance tasks according to job requirements
6. Conduct clean-up activities	6.1 Clear work area and dispose of or recycle materials according to site requirements 6.2 Clean, check, perform maintenance on and store plant, tools and equipment according to manufacturer specifications and site 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
Oral communication	- Identifies and interprets information from verbal instructions - Conveys information and instructions to others verbally
Self-management	Monitors and minimises own exposure to worksite risks and hazards during work activities
Teamwork	Works with others to complete tasks
Technology	Identifies purposes, specific functions and key features of common digital systems and tools and operates them as required
Writing	Communicates and documents information in written form

Unit Mapping Information

Supersedes and is equivalent to RIICBM304D Operate a bridge inspection unit.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for RIICBM304E Operate bridge inspection units

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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:

- operate a bridge inspection unit on at least two occasions, including:
 - conducting start-up, park and shutdown procedures
 - loading and entering platform and attaching fall arrest device
 - operating a self-propelled or truck mounted under bridge inspection unit to inspect the underside and the outer sides of a whole bridge of at least twenty metres in length, for two bridges, wharves or jetties to specifications.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures
- identify, report and record hazards and risks
- implement the requirements, procedures and techniques for completing bridge inspection unit operations, including identifying and applying the required operating technique
- work with others to operate bridge inspection units that meets required outcomes, including:
 - using communication techniques and equipment to convey information to others, including signage to advise others of work activity and exclusion zones
 - completing written and verbal reporting requirements and procedures
 - communicating with others to receive and clarify work instructions
 - communicating location adjustment requirements to driver.

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:

- legislation required to operate bridge inspection units

- policies, procedures and documentation required to operate bridge inspection units, including those relating to:
 - hazard and risk management
 - emergency response and emergency safety devices
 - site and equipment safety
 - waste management
 - environmental protection
 - communication techniques and equipment
 - safe working procedures for working at heights and over water
 - operational, maintenance and basic diagnostics
 - site isolation and traffic control responsibilities
 - project quality requirements
 - job plans and specifications
 - site requirements
 - manufacturer specifications for required plant and equipment
 - start-up, park and shutdown procedures
 - workplace reporting requirements
- principles and techniques required to operate bridge inspection units, including those relating to:
 - bridge construction
 - bridge components
 - wharves, piers and jetties
 - concrete and timber structures
 - operating methods
 - stabilisers
 - obstacle identification
 - under bridge inspection units and operation
 - fall arrestors
 - buckets or platforms
 - fault identification
 - interpreting engineering drawings
- types, characteristics, technical capabilities and limitations of plant and equipment required to operate bridge inspection units including:
 - truck mounted units
 - self-propelled units
 - fall arrestors
 - signage
 - under bridge inspection units
 - buckets or platforms
 - maintenance tools and equipment

- materials safety data sheets (SDS) compliance processes
- components of job safety analyses (JSAs), job safety environmental analyses (JSEAs), and safe work method statements (SWMs)
- civil construction terminology relating to operating bridge inspection units.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to operate bridge inspection units
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes 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 sector's 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 regulatory standards as set out in the Standards for Registered Training Organisations (RTOs) 2015/Australian Quality Training Framework 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 the required level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence 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 have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must 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 indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 years
Other sectors	Where this unit 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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