



Australian Government

RIICBS401E Supervise asphalt paving and compaction operations

Release: 1

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Modification History

This unit replaces RIICBS401D Apply the principles of asphalt paving and compaction. 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 describes the skills and knowledge required to supervise asphalt paving and compaction operations in civil construction.

It applies to those working in supervisory roles. They are generally responsible for the output of others, contribute to the development of technical solutions to non-routine problems and apply management plans to the workplace.

No licensing, legislative 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 supervise asphalt paving and compaction	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply asphalt paving and compaction documentation and confirm the work activity is compliant 1.3 Prepare and implement an action plan, in consultation with team members 1.4 Confirm required resources are acquired and made available for task 1.5 Monitor risk management and environmental protection and address non-compliance
2. Prepare team members to execute tasks	2.1 Identify team member training requirements and develop and implement training plans 2.2 Issue task instructions to team members and others involved according to job requirements

ELEMENT	PERFORMANCE CRITERIA
	2.3 Confirm all team members are trained in emergency procedures and are prepared for fire, accident and other emergencies
2. Oversee execution of tasks	3.1 Monitor asphalt paving and compaction tasks and confirm outcomes meet job requirements 3.2 Initiate adjustments to work practice or job plan as required 3.3 Oversee maintenance of plant, equipment and tools and confirm maintenance is recorded as required
4. Report on execution of tasks	4.1 Complete and submit reports as required 4.2 Recommend changes to improve asphalt paving and compaction tasks

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 complex information from workplace procedures, documentation, legislation, regulations, and team member training needs assessments
Writing	Writes job plans, organisational procedures and specifications considering available resources and time frames
Oral Communication	Presents workplace procedures and technical instructions to a group using sector-specific vocabulary

Unit Mapping Information

Supersedes and is equivalent to RIICBS401D Apply the principles of asphalt paving and compaction.

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 RIICBS401E Supervise asphalt paving and compaction operations

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:

- supervise asphalt paving and compaction operations on at least two occasions.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures
- identify soil and rock types
- interpret and implement required procedures and techniques, including:
 - project contract and specification requirements and procedures
 - project site soil and geological data
 - meteorological data
 - material properties and test results
 - project engineering
 - survey information
 - project plans and drawings
 - project specifications
- work with others to plan, prepare and supervise asphalt paving and compaction operations, including:
 - communicating instructions to those involved
 - preparing for and conducting briefings, toolbox and site meetings
 - maintaining written records and the reports
- prepare a job plan including at least five of the following:
 - human resource requirements
 - plant and machinery requirements
 - construction materials requirements
 - sub-contractor support requirements
 - waste disposal requirements
 - coordination requirements
 - activity scheduling
 - materials delivery scheduling

- risk assessment and management requirements
- work health and safety requirements
- quality management and testing scheduling requirements
- traffic management requirements
- environmental requirements
- task monitoring requirements
- task performance monitoring requirements
- communication requirements
- reporting requirements
- complete set out to requirements including at least two of the following:
 - control lines
 - cleared width
 - batters
 - off-sets.

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:

- estimating principles relevant to asphalt paving and compaction
- road construction sequencing
- asphalt placement and compaction and related activities terminology
- road geometry as it applies to paving and compaction operations
- procedures for scheduling work activities
- relationship between various areas of resources and infrastructure industries
- key legislation for supervising asphalt paving and compaction operations
- key policies, procedures and established requirements for supervising asphalt paving and compaction operations, including those for:
 - risk assessment and management
 - statutory compliance
 - workplace health and safety
 - environmental management
 - workplace communication
 - quality management
 - work zone traffic management
 - contract management
 - job administration
 - plant, equipment and tools maintenance
 - materials deliveries
 - supervising workplace relationships
 - straight line and intersection paving and compaction requirements and procedures

- job set out
- pavement drainage
- key factors affecting work activities described in performance evidence above, including:
 - plant and equipment capabilities and application
 - operational techniques
 - potential operational problems
 - monitoring methods
 - resource requirements
 - material properties and compaction test results
 - characteristics, application and requirements and procedures for different types of asphalt
 - asphalt mix design philosophy and test methods.

Assessment Conditions

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

- include access to:
 - asphalt paving and compaction equipment
 - 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 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 (Quarrying)	3-6	3 Years
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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