



Australian Government

RIICBS311E Produce asphalt products

Release: 1

RIICBS311E Produce asphalt products

Modification History

This unit replaces RIICBS311D Produce asphalt products. 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 produce asphalt products in civil construction.

It applies to those working in operational roles. The individual is generally a skilled operator and may provide theoretical advice and support a team.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of 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. Prepare to produce asphalt products	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply asphalt products production documentation and confirm the 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 Select plant, tools and equipment required for tasks and check for faults within scope of own role 1.6 Confirm and comply with environmental protection, safety and traffic management signage requirements 1.7 Obtain and interpret emergency procedures and identify steps required in case of fire, accident and other

ELEMENT	PERFORMANCE CRITERIA
	emergencies
2. Operate plant	2.1 Carry out pre-start and start-up procedures on plant 2.2 Determine production requirements according to specifications 2.3 Test aggregate and sand as it arrives 2.4 Monitor cold feed bins and confirm sufficient raw material is maintained 2.5 Confirm proportion of material allocation is set to batch requirements 2.6 Select mix design to batch requirements 2.7 Heat and mix material to the correct temperature and tolerance 2.8 Store material ready for dispatch and loading according to workplace procedures 2.9 Monitor loading operations according to workplace and safety requirements 2.10 Test mixed material regularly for bitumen content and grading
3. Carry out operator maintenance	3.1 Prepare machine for maintenance 3.2 Conduct inspection and fault finding 3.3 Carry out scheduled maintenance tasks according to workplace procedures 3.4 Process written maintenance records according to workplace procedures
4. Clean up	4.1 Clear work area and dispose of and recycle materials as required according to workplace procedures and environmental requirements 4.2 Clean, check, perform maintenance on in scope of own role, and store plant, tools and equipment 4.3 Carry out housekeeping 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 workplace procedures, documentation, legislation and regulations

Skill	Description
Self-management	Monitors and minimises own exposure to worksite hazards during activities
Oral communication	Uses a range of communication techniques and systems to communicate with others

Unit Mapping Information

Supersedes and is equivalent to RIICBS311D Produce asphalt products.

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 RIICBS311E Produce asphalt products

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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:

- produce asphalt products on at least two occasions, including:
 - completing programming and planning of the mix specification for three separate mixes, with the temperature and mix produced within tolerance for 300 tonne of mix, without plant down time.

During the above, the candidate must:

- locate and apply legislation, documentation, policies and procedures required for producing asphalt products
- work with others to undertake and complete the production of asphalt products that meets the required outcomes, including:
 - complying with written and verbal reporting requirements and procedures
 - communicating with others to receive and clarify work instructions
 - communicating with others to resolve coordination requirements prior to commencing and during work activities
- clean, check, perform maintenance on and store equipment
- complete housekeeping activities.

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:

- batching systems procedures
- safety data sheet (SDS) compliance processes
- key components of job safety analyses (JSAs)/job safety environmental analyses (JSEAs)/safe work method statements (SWMSs)
- calculating material requirements and application rates
- key legislation for producing asphalt products
- key policies, procedures and established requirements for producing asphalt products, including those for:
 - site and equipment safety

- environmental protection, including waste disposal and recycling
- conducting plant operations
- heating bitumen and controlling temperature
- batch testing
- operating and maintaining equipment
- housekeeping
- key factors affecting work activities described in performance evidence above, including:
 - mix specifications including temperatures and tolerances
 - production requirements
 - bituminous materials and their characteristics
 - aggregate and sand properties and conformance
 - using additives
 - equipment types, characteristics, technical capabilities and limitations.

Assessment Conditions

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

- include access to:
 - equipment required to produce asphalt products
 - 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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