



Australian Government

Department of Education, Employment and Workplace Relations

RIICBS305A Conduct asphalt paver operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of asphalt paver operations in the civil construction industry. It includes planning and preparing, setting up asphalt paver, operating asphalt paver, carrying out operator maintenance, relocating paver, and cleaning up. 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.

Application of the Unit

This unit is appropriate for those working in an operational role at worksites within:

- Civil construction

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Obtain and confirm safety requirements from the site safety plan and organisational policies and procedures, and apply to the allotted task 1.3. Identify, obtain and implement signage requirements from the project traffic management plan 1.4. Determine material to be laid and handling procedures to be employed according to specifications 1.5. Select plant, tools and equipment to carry out asphalt paver tasks consistent with the requirements of the job, check for serviceability and rectify or report any faults 1.6. Identify environmental protection requirements from the project environmental management plan, and confirm and apply to the allotted task
2. Set up asphalt paver	2.1. Carry out start-up, park, and shutdown procedures in accordance with manufacturer's and/or site specific requirements 2.2. Adjust, change or inflate tyres using safe handling procedures 2.3. Set equipment to correct levels to enable the laying of materials to specifications 2.4. Set heating controls for the screed board to specifications 2.5. Install feeder bin where required 2.6. Check materials spreading controls for correct operation
3. Operate asphalt paver	3.1. Engage delivery vehicles smoothly without bumping 3.2. Maintain appropriate uniform speed during spreading operations 3.3. Monitor and maintain asphalt mix according to job specifications 3.4. Maintain communication with screed hand

	<p>to ensure job is progressing satisfactorily and that materials are being spread to specifications</p> <p>3.5. Monitor movement of the plant to ensure safety of asphalt crew</p>
4. Carry out operator maintenance	<p>4.1. Park paver safely, prepare for maintenance and shutdown as per manufacturer's manual and organisational requirements</p> <p>4.2. Conduct inspection and fault finding</p> <p>4.3. Carry out routine operational servicing and lubrication tasks</p> <p>4.4. Carry out minor maintenance</p> <p>4.5. Record performance of machine constantly to enable timely repair of equipment</p>
5. Relocate paver	<p>5.1. Prepare paver for relocation</p> <p>5.2. Drive paver safely on highways and construction sites, observing highway code and local safety requirements</p>
6. Clean up	<p>6.1. Clear work area and dispose of or recycle materials in accordance with project environmental management plan</p> <p>6.2. Clean, check, maintain and store plant, tools and equipment</p>

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to conduct asphalt paver operations:

- apply legislative, organisation and site requirements and procedures for conducting asphalt paver operations
- organise work activities
- select and use relevant tools and equipment safely
- identify and report on hazards related to the worksite and work activity
- communicate effectively to receive and clarify work instructions

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to conduct asphalt paver operations:

- site and equipment safety requirements
- asphalt paving techniques
- asphalt paving operations
- asphalt strength and performance characteristics
- edge and joint treatments
- equipment types, characteristics, technical capabilities and limitations
- operational, maintenance and basic diagnostic procedures
- site isolation and traffic control responsibilities and authorities
- processes for the calculation of material requirements, mix, application rates, uniformity and travel speed
- materials safety data sheets and materials handling methods
- project quality requirements
- civil construction terminology
- JSAs/safe work method statements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:

- knowledge of the requirements, procedures and instructions for conducting asphalt paver operations
- implementation of requirements, procedures and techniques for the safe, effective and efficient completion of asphalt paver operations
- working with others to undertake and complete asphalt paver operations that meets all of the required outcomes
- consistent timely completion of asphalt paver operations that safely, effectively and efficiently meets the required outcomes
- the conduct of paver operations are to be performed in a minimum of two different asphalt types/surface types and are to include the mandatory tasks from the unit scope and cover as a minimum:
 - three longitudinal joints (of at least 100m) to be constructed to required thickness, uniformity, line and level, on both matching and unsupported edge in accordance with project specifications and/or work instructions
 - six transverse joints to be constructed to required thickness, uniformity, line and level, on both matching and unsupported edge in accordance with project specifications and/or work instructions
 - five sections of straight paving (one of at least 100 linear metres) to required thickness, uniformity, line and level, on both matching and unsupported edge in

	<p>accordance with project specifications and/or work instructions</p> <ul style="list-style-type: none"> • three intersections to required thickness, uniformity, line and level, on both matching and unsupported edge in accordance with project specifications and/or work instructions • operations to include residential, commercial and highway projects; and • material delivery through the paver is to include manual and automatic control
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.
<p>Method of assessment</p>	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using</p>

	<p>more than one of the following assessment methods:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake and complete asphalt paver operations
<p>Guidance information for assessment</p>	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisational and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Safety requirements may include:</p>	<ul style="list-style-type: none"> • OHS requirements in accordance with state or territory legislation and regulations, organisational safety policies and procedures, and project safety plan, including protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, use of First Aid equipment, hazard control and hazardous materials and substances • safe parking practices including ensuring access ways are clear, equipment/machinery is away from overhangs and refuelling sites, safe distance are kept from excavations, and areas secured from unauthorised access or movement • safe operating procedures including recognising and preventing hazards associated with uneven/unstable terrain, trees, pits, poles, trip hazards, dirt mounds, overhead service lines, bridges, surrounding buildings, obstructions, structures, facilities, dangerous materials, recently filled trenches, other machines, personnel, traffic control, working in proximity to others, worksite visitors and the public • recognising hazards and risks including uneven/unstable terrain, trees, fires, overhead and underground services, bridges, buildings, excavations, traffic, embankments, cuttings, structures and hazardous materials

	<ul style="list-style-type: none"> • emergency procedures related to equipment operation including emergency shutdown and stopping, extinguishing equipment fires, organisational First Aid requirements and evacuation
Site may include:	<ul style="list-style-type: none"> • car parks • airport runways • container yards • hard stands • footpaths • bikeways • roadways
Signage may include:	<ul style="list-style-type: none"> • escort vehicle • highway traffic signs • site safety signage • temporary signage for the benefit of motorists and pedestrians • traffic conditions signage
Traffic conditions may include:	<ul style="list-style-type: none"> • congested urban environments • low traffic rural areas • off-road un-trafficked areas • buildings • parking sites • pedestrian areas
Materials may include:	<ul style="list-style-type: none"> • asphalt • granular materials • bound materials
Tools and equipment may include:	<ul style="list-style-type: none"> • pavers • basic tool kits • shovels
Asphalt paver tasks may include:	<ul style="list-style-type: none"> • spreading bituminous materials • mixing materials • spreading concrete • spreading granular materials
Environmental protection requirements may include:	<ul style="list-style-type: none"> • organisational/project environmental management plan • waste management • water quality protection • noise • vibration • dust and clean-up management

Communication methods may include:	<ul style="list-style-type: none">• verbal instructions• two way radio• hand signals,• mobile phone
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Unit Sector(s)

Bituminous Surfacing

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.