



Australian Government

Department of Education, Employment and Workplace Relations

RIICBS203A Safely handle bituminous materials

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the safe handling of bituminous materials in the civil construction industry. It includes planning and preparing, working safely with bituminous materials, demonstrating First Aid for bitumen burns, 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 assistant 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

Elements describe the essential outcomes of a unit of competency.	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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	1.1. Access, interpret and apply <i>compliance documentation</i> relevant to the work activity 1.2. Obtain and confirm <i>safety requirements</i> from the <i>site</i> safety plan and organisational policies and procedures, and apply to the allotted task 1.3. Select <i>tools and equipment</i> to carry out tasks consistent with the requirements of the job, check for serviceability and rectify or report any faults 1.4. Identify, confirm and apply <i>environmental protection requirements</i> from the project environmental management plan
2. Work safely with bituminous materials	2.1. Identify characteristics and uses of bituminous <i>materials</i> and additives used in surfacing 2.2. Identify hazards associated with working with hot bitumen and implement <i>minimisation strategies</i> 2.3. Adhere to Australian Asphalt Paving Association (AAPA) code of practice for working with Styrene Butadiene Styrene (SBS) modified binders 2.4. Adhere to fire precautions associated with hot bitumen as detailed in Austroads Bitumen Sealing Safety Guide 2.5. Extract and apply information including OHS from materials safety data sheet associated with bituminous materials 2.6. Perform work to the requirements of the organisation's environmental policy and EPA standards
3. Demonstrate First Aid for bitumen burns	3.1. Perform First Aid in the case of a bitumen burn in accordance with Austroads Bitumen Sealing Safety Guide 3.2. Attach 'Bitumen Burn Tag' to victims of burns who are to be treated off site in accordance with Austroads Bitumen Sealing Safety Guide
4. Clean up	4.1. Clear work area and dispose of or recycle materials in accordance with project

	environmental management plan 4.2. Clean, check, maintain and store tools and equipment
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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 safely handle bituminous materials:

- apply legislative, organisation and site requirements and procedures for safe handling of bituminous materials
- 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 safely handle bituminous materials:

- site and equipment safety requirements
- bituminous materials
- SBS modified binders
- materials safety data sheet requirements
- equipment types, characteristics, capabilities and limitations
- operational and maintenance procedures
- site isolation responsibilities and authorities
- processes for the calculation of material requirements
- materials handling methods
- project quality requirements
- civil construction terminology
- JSAs/safe work method statements

Evidence Guide

<p>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.</p>	
<p>Overview of assessment</p>	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>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:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for safe handling of bituminous materials • implementation of requirements, procedures and techniques for the safe, effective and efficient safe handling of bituminous materials • working with others to undertake and complete the safe handling of bituminous materials that meets all of the required outcomes • consistent timely completion of safe handling of bituminous materials that safely, effectively and efficiently meets the required outcomes • a minimum of five major hazards associated with handling bituminous materials are reported • a minimum of four bituminous materials are stored and used together • burn First Aid is applied to a minimum of one simulated burn and tagged accordingly • a minimum of one simulated fire involving a bituminous substance is extinguished
<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

	<p>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.</p> <ul style="list-style-type: none"> • 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 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 the safe handling of bituminous materials
<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 operating procedures including recognising and preventing hazards associated with uneven/unstable terrain, trees, 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 • emergency procedures including extinguishing fires, organisational First Aid requirements and evacuation
<p>Site locations may include:</p>	<ul style="list-style-type: none"> • car parks • airport runways • container yards • hard stands

	<ul style="list-style-type: none"> • footpaths • bikeways • roadways
Tools and equipment may include:	<ul style="list-style-type: none"> • infrared thermometers • hazchem signs • water finding paste
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
Materials may include:	<ul style="list-style-type: none"> • bituminous materials (bitumen, cutback bitumen products, emulsions, asphalt, slurries, additives, fluxes, cutters) • aggregates • SBS modified binders • Polymers • geo-synthetic products
Minimisation strategies may include:	<ul style="list-style-type: none"> • temperature control • correct product changeover procedures • correct mixing/blending procedures • avoiding the presence of water in hot bitumen • avoiding fumes, exposure to heat, static electricity, fires, burns • safe handling of flammable substances

Unit Sector(s)

Bituminous Surfacing

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.