



Australian Government

Department of Education, Employment and Workplace Relations

RIICBS207A Take samples of materials used in road surfacing

Release: 1

RIICBS207A Take samples of materials used in road surfacing

Modification History

Not applicable.

Unit Descriptor

This unit covers the taking of samples of materials used in road surfacing in the civil construction industry. It includes planning and preparing, taking samples, 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

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| 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 |
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| 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. Take samples | 2.1. Obtain suitable clean containers with tight fitting lids 2.2. Take <i>sample</i> in accordance with approved procedure/job instructions/Australian standards/Austrroads test methods 2.3. <i>Handle, label</i> and store sample in accordance with approved procedure/job instructions/Australian standards/Austrroads test methods 2.4. Adhere to <i>safety precautions</i> for obtaining and handling hot samples |
| 3. Clean up | 3.1. Clear work area and dispose of or recycle <i>materials</i> in accordance with project environmental management plan 3.2. Clean, check, maintain and store tools and equipment |

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 take samples of materials used in road surfacing:

- apply legislative, organisation and site requirements and procedures for taking samples of materials used in road surfacing
- 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 take samples of materials used in road surfacing:

- site and equipment safety requirements
- bituminous materials
- sampling techniques
- site isolation and traffic control responsibilities and authorities
- materials safety data sheets and materials handling methods
- project quality requirements
- civil construction terminology
- JSAs/safe work method statements

Evidence Guide

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| <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 taking samples of materials used in road surfacing • implementation of requirements, procedures and techniques for the safe, effective and efficient taking of samples of materials used in road surfacing • working with others to undertake and complete the taking of samples of materials used in road surfacing that meets all of the required outcomes • consistent timely completion of taking of samples of materials used in road surfacing that safely, effectively and efficiently meets the required outcomes • sample of bituminous materials to be taken include: <ul style="list-style-type: none"> • at least one sample of an aggregate material • at least one sample of either asphalt or slurry • each of the above to be taken from each of a container, site and stock pile |
| <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. |

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| | <ul style="list-style-type: none"> • 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. |
| Method of assessment | <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 taking of samples of materials used in road surfacing |
| Guidance information for assessment | Consult the SkillsDMC User Guide for further information on assessment including access and |

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| | equity issues. |
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Range Statement

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| <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"> • 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 related to equipment operation including extinguishing equipment fires, organisational First Aid requirements and evacuation |
| <p>Site may include:</p> | <ul style="list-style-type: none"> • car parks • airport runways • container yards • hard stands |

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| | <ul style="list-style-type: none"> • footpaths • bikeways • roadway |
| Tools and equipment may include: | <ul style="list-style-type: none"> • sample containers (tins, hessian bags, plastic bags) • labels and marking pens • tags, string and wire |
| 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 |
| Sample sources may include: | <ul style="list-style-type: none"> • bulk storage • tanker • on site drums or stock piles |
| Handle may include: | <ul style="list-style-type: none"> • non contamination by other bituminous materials, solvents or cleaning materials • not reheating samples • sample container being tightly sealed immediately when the cold sample is placed in it • sample container not immersed in solvent or wiped with solvent saturated cloth • spilled materials on the outside of the container wiped off with a clean dry cloth immediately after sealing |
| Label and report may include: | <ul style="list-style-type: none"> • type of material taken • number of samples taken • where samples were taken from (including identifying number of container or vehicle) • specific job requirements • size of sample required • identification mark • date of sampling • supplier name • delivery docket details • name of sample taker • quantity of materials represented by the sample |
| Safe precautions may include: | <ul style="list-style-type: none"> • no smoking • gloves and safety glasses worn while sampling |

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| | <p>and sealing containers</p> <ul style="list-style-type: none"> • where sampling valves or outlets are used the sampler should stand to the windward side and as far from the outlet as possible • samples to be taken slowly to prevent splashing • container placed on a firm flat surface to prevent spilling or splashing |
| Materials may include: | <ul style="list-style-type: none"> • aggregates • hot bitumen • bitumen emulsion • modified bitumen • additives • slurries • pre-coated materials • cutters • cutback bitumens • flux oils • asphalt |

Unit Sector(s)

Bituminous Surfacing

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.