

# RIICRM206A Conduct airless and atomised spraying operations

Release: 1



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#### **Modification History**

Not applicable.

#### **Unit Descriptor**

This unit covers the conduct of airless and atomised spraying operations in the civil construction industry. It includes planning and preparing, preparing surface and set out, preparing marking materials, applying road marking materials, measuring work, 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.

Approved Page 2 of 10

#### **Elements and Performance Criteria**

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	1.1. Access, interpret and apply <i>compliance</i> documentation 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. Identify, obtain and implement <i>signage</i> requirements from the project traffic  management plan
	1.4. 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
	1.5. Identify <i>environmental protection</i> requirements from the project environmental management plan, and confirm and apply to the allotted task
2. Prepare surface and set out	2.1.Clear <i>area</i> of dirt, debris and other contaminants
	2.2. Identify location for <i>line marking</i> and set out with control points to requirements or specifications
	2.3. Spot straight lines and curves in preparation for marking
	2.4. Remove pre-existing visible marks/lines to specification
3. Prepare marking materials	3.1. Mix marking <i>material</i> and prepare in accordance with manufacturer's and job specifications
	3.2. Adjust additives and consistency of material to allow easy application and appropriate drying time to manufacturer's recommendations
	3.3. Transfer marking material carefully to applicator container
4. Apply road marking materials	4.1. Select equipment relevant to the task and prepare for operation
	4.2. Apply airless and/or atomised spray equipment across the surface with the correct movement and pressure
	4.3. Apply road marking material to the surface

Approved Page 3 of 10

	providing an even coverage in accordance with the job specification 4.4. Identify and correct defects in the coating
	4.5. Maintain equipment in accordance with manufacturer's specifications
5. Measure work	5.1. Assess, record and report work to comply with job specification
	5.2. Measure, calculate and quantify amount of line marking completed
	5.3. Identify and report non conforming work
6. Clean up	6.1.Clear work area and dispose of or recycle materials in accordance with project environmental management plan
	6.2. Clean, check, maintain and store tools and equipment

Approved Page 4 of 10

#### 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 airless and atomized spraying operations:

- apply legislative, organisation and site requirements and procedures for conducting airless and atomized spraying 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 airless and atomized spraying operations:

- site and equipment safety requirements
- airless and atomised spraying road marking activities and techniques
- road markings
- road marking materials
- 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, application rates and movement speed
- materials safety data sheets and materials handling methods
- project quality requirements
- civil construction terminology
- JSAs/safe work method statements

Approved Page 5 of 10

#### **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 airless and atomized spraying operations
	implementation of requirements, procedures and techniques for the safe, effective and efficient completion of airless and atomized spraying operations
	working with others to undertake and complete airless and atomized spraying operations that meets all of the required outcomes
	consistent timely completion of airless and atomized spraying operations that safely, effectively and efficiently meets the required outcomes
	• organisation for the application of at least 30m <sup>2</sup> of transverse lines within tolerances specified using airless or atomised spray equipment
Context of and specific resources for assessment	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.
	<ul> <li>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.</li> <li>The assessment environment should not</li> </ul>

Approved Page 6 of 10

	<ul> <li>disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job.</li> <li>Customisation of assessment and delivery environment to sensitively accommodate cultural diversity.</li> <li>Aboriginal people and other people from a non English speaking background may have second language issues.</li> <li>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.</li> </ul>
Method of assessment	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:
	<ul> <li>written and/or oral assessment of the candidate's required knowledge</li> <li>observed, documented and/or first hand testimonial evidence of the candidate's: <ul> <li>implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes</li> <li>consistent achievement of required outcomes</li> <li>first hand testimonial evidence of the candidate's:</li> <li>working with others to undertake and</li> </ul> </li> </ul>
	complete airless and atomized spraying operations
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Page 7 of 10 Approved SkillsDMC

#### **Range Statement**

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.

# Relevant compliance documentation may include:

- 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

# **Safety requirements** may include:

- 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
- emergency procedures related to equipment

Approved Page 8 of 10

	operation including emergency shutdown and stopping, extinguishing equipment fires, organisational First Aid requirements and evacuation
Site locations may include:	<ul> <li>roads</li> <li>bridges</li> <li>footpaths</li> <li>sports courts and fields</li> <li>car parks</li> <li>cycle paths</li> <li>factories</li> <li>airports</li> <li>walking tracks and similar sealed surfaces</li> </ul>
Signage requirements may include:	<ul> <li>escort vehicle</li> <li>highway traffic signs</li> <li>site safety signage</li> <li>temporary signage for the benefit of motorists and pedestrians</li> <li>traffic conditions signage</li> </ul>
Traffic conditions may include:	<ul> <li>congested urban environments</li> <li>low traffic rural areas</li> <li>off-road un-trafficked areas</li> <li>buildings</li> <li>parking sites</li> <li>pedestrian areas</li> <li>highways</li> </ul>
Tools and equipment may include:	<ul> <li>airless or atomised spray equipment</li> <li>filters</li> <li>spray tips</li> <li>maintenance tools</li> </ul>
Environmental protection requirements may include:	<ul> <li>organisational/project environmental management plan</li> <li>waste management</li> <li>water quality protection</li> <li>noise</li> <li>vibration</li> <li>dust and clean-up management</li> </ul>
Area may include:	<ul><li>chip seal</li><li>asphalt</li><li>concrete</li></ul>
Line marking may include:	transverse and longitudinal markings which

Approved Page 9 of 10 SkillsDMC

	may include:
	<ul> <li>barrier lines (one direction and both directions)</li> </ul>
	• edge lines
	• arrows
	• shapes
	• symbols
	<ul> <li>lane lines (broken and unbroken)</li> </ul>
	<ul> <li>separation lines (broken and unbroken)</li> </ul>
	<ul> <li>continuity lines</li> </ul>
	• turn lines
	• outline
	• stop lines
	<ul> <li>holding lines</li> </ul>
	<ul> <li>stop and give way lines</li> </ul>
	<ul> <li>pedestrian crosswalk lines</li> </ul>
	<ul> <li>diagonal and chevron markings</li> </ul>
	<ul> <li>numerals</li> </ul>
	<ul> <li>parking areas</li> </ul>
	<ul> <li>kerb markings</li> </ul>
Material may include:	<ul><li>paints</li><li>solvents</li></ul>
	long life products (two pack epoxy, thermo plastic)

### **Unit Sector(s)**

Road Marking

## **Competency field**

Refer to Unit Sector(s).

## **Co-requisite units**

Not applicable.

Approved Page 10 of 10