



Australian Government

RIICRM303E Conduct thermo plastic road marking operations

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to conduct thermo plastic road marking operations in civil construction. This includes preparing the road marking surface and materials, applying materials, measuring work and cleaning up after work activities.

It applies to those working in operational roles. They generally work under minimal supervision to undertake a broad range of tasks in varied work contexts, using some discretion and judgement in selecting equipment, services or contingency measures.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying 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. Plan and prepare to conduct thermo plastic road marking operations	1.1 Obtain, interpret, clarify and confirm work instructions 1.2 Access, interpret and apply thermo plastic road marking operations documentation and confirm the work activity is compliant 1.3 Identify and implement traffic management signage requirements 1.4 Select plant, tools and equipment to carry out tasks and check for faults 1.5 Identify and address potential risks, hazards and environmental issues, and implement control measures within scope of own role 1.6 Select and wear personal protective equipment required for work activities

ELEMENT	PERFORMANCE CRITERIA
	1.7 Obtain and interpret emergency procedures and identify steps required to respond to emergencies
2. Prepare surface and set out	2.1 Clear area of dirt, debris and other contaminants 2.2 Identify location for line marking and set out with control points 2.3 Spot straight lines and curves in preparation for marking 2.4 Remove pre-existing visible marks and lines where required 2.5 Prime marked location for lines in preparation for road marking application
3. Prepare marking materials	3.1 Mix and prepare marking material 3.2 Heat material to manufacturer specifications to allow easy and consistent application 3.3 Transfer marking material safely to applicator container
4. Apply road marking materials	4.1 Use equipment with the correct movement and pressure 4.2 Apply road marking material to the surface providing an even coverage 4.3 Identify and correct defects in the thermo plastic material 4.4 Perform maintenance on equipment according to manufacturer specifications and site requirements
5. Measure and record work	5.1 Assess, record and report work outcomes according to site requirements 5.2 Calculate and quantify amount of line marking completed 5.3 Identify and report non-conforming work
6. Conduct clean-up activities	6.1 Clear work area and dispose of or recycle materials according to site requirements 6.2 Clean, check, perform maintenance on and store plant, tools and equipment according to manufacturer specifications and site requirements 6.3 Carry out housekeeping activities according to site 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
Numeracy	Calculates basic measurements relating to distances, material requirements, application rates and travel speeds

SKILL	DESCRIPTION
Self-management	Monitors and minimises own exposure to worksite risks and hazards during work activities
Writing	Completes maintenance records using sector specific vocabulary, grammatical structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIICRM303D Conduct thermo plastic road marking operations.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIICRM303E Conduct thermo plastic road marking operations

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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:

- conduct thermo plastic road marking operations on at least two occasions, including:
 - completing at least five kilometres of new lines of each of the following to the specified tolerance:
 - centre line, including:
 - separation line
 - barrier line one direction
 - barrier line both directions
 - edge lines
 - re-marking at least five kilometres of existing lines of each of the following to the specified tolerance:
 - centre line, including:
 - separation line
 - barrier line one direction
 - barrier line both directions
 - edge lines.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures
- identify, report and record hazards, risks and environmental issues
- work with others to conduct thermo plastic road marking operations that meet required outcomes, including:
 - communicating with others to receive and clarify work instructions
 - using communication techniques and systems to advise others of work activity and exclusion zones.

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:

- legislation required to conduct thermo plastic road marking operations
- policies, procedures and documentation required to conduct thermo plastic road marking operations, including those relating to:
 - work health and safety
 - emergency response
 - work instructions
 - manufacturer specifications for required materials, plant and equipment
 - site requirements
 - communication techniques and equipment
 - workplace recording and reporting
 - equipment operation
 - operational, maintenance and basic diagnostics
 - safety data sheets (SDS) and materials handling methods
 - site isolation and traffic control responsibilities and authorities
 - Job Safety Analyses (JSAs)/Safe Work Method Statements (SWMS)
 - housekeeping activities, including:
 - cleaning work area
 - cleaning and maintaining condition of equipment
 - waste management
 - processing records
 - project quality requirements
- principles and techniques for effective ride on road marking operations, including:
 - principles for identifying and applying road markings
 - providing an even coverage of road marking materials
- equipment types, characteristics, technical capabilities and limitations
- civil construction terminology relevant to conducting thermo plastic road marking operations
- procedures for using thermo plastic materials
- processes for calculating distances, material requirements, application rates and travel speed.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to conduct thermo plastic road marking operations

- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes 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 sector's 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 regulatory standards as set out in the Standards for Registered Training Organisations 2015/Australian Quality Training Framework 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 the required level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence 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 have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must 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 indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying)	1	1 year
	2	2 years

and Civil Infrastructure		
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 years
Other sectors	Where this unit 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 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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