



Australian Government

RIICCM207E Spread and compact materials manually

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 spread and compact materials manually in civil construction, including conducting compaction machine operational checks, directing vehicles and materials, directing machine operator to spread materials and operating mechanical compaction equipment.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take some responsibility for the quality of work outcomes.

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 for manually spreading and compacting materials	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to spread and compact materials manually 1.3 Obtain and interpret emergency procedures and identify steps required to respond to emergencies 1.4 Select and wear personal protective equipment according to site requirements 1.5 Confirm and identify requirements for complying with environmental protection, safety and traffic management signage requirements

ELEMENT	PERFORMANCE CRITERIA
	1.6 Identify, address and report environmental issues, potential hazards and risks 1.7 Select plant, tools and equipment required to carry out tasks and check for faults 1.8 Identify, confirm, and locate materials required for work application
2. Conduct compaction machine operational checks	2.1 Carry out pre-start, start-up and shutdown procedures 2.2 Check machine controls and functions for serviceability and rectify or report any faults
3. Spread and compact materials	3.1 Conduct basic field identification test and identify material type 3.2 Direct trucks to required location for loading and/or dumping 3.3 Direct delivered and/or relocated materials to correct location 3.4 Check manufactured material for segregation 3.5 Conduct field test and confirm material moisture is suitable 3.6 Direct machine operator to spread materials to specified levels 3.7 Finish materials by hand to specified levels 3.8 Operate mechanical compaction equipment and consolidate materials into layers 3.9 Conduct field test and confirm compaction has been achieved in restricted locations
4. Conduct housekeeping activities	4.1 Clear work area and dispose of or recycle materials according to site requirements 4.2 Clean and maintain condition of equipment, confirm suitability for use, and address and report issues as required within scope of own role 4.3 Manage and report hazards, and maintain a safe working environment 4.4 Process written records 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 including mass and dimensions
Self-management	Monitors and minimises own exposure to worksite risks and hazards during work activities

Unit Mapping Information

Supersedes and is equivalent to RIICCM207D Spread and compact materials manually.

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 RIICCM207E Spread and compact materials manually

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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:

- spread and compact materials manually on at least two occasions, including:
 - completing the hand spreading and the mechanical (hand operated) compaction of two different material types to site specification.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures
- identify, report and record hazards and risks
- implement the requirements, procedures and techniques for the manual spreading and compacting of materials, including:
 - selecting and using required tools and equipment
 - carrying out equipment pre-start, start-up and shutdown procedures
 - conducting practical field tests for moisture content, shrinkage and compaction
- work with others to spread and compact materials manually to meet required outcomes, including:
 - communicating to direct operators
 - using communication techniques and equipment to convey information to others, including signage to advise others of work activity and exclusion zones
 - completing reporting requirements and procedures.

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 spread and compact materials manually
- policies, procedures and documentation required to spread and compact materials manually, including those relating to:

- hazard and risk management
- work health and safety
- emergency response
- site and equipment safety
- environmental protection waste management
- communication techniques and equipment
- workplace recording and reporting
- site isolation and traffic control responsibilities
- operational, maintenance and basic diagnostic procedures
- project quality requirements
- job plans and specifications
- housekeeping activities, including:
 - cleaning work area
 - cleaning and maintaining condition of equipment
 - waste management
 - processing records
- principles and techniques required to spread and compact materials manually, including those related to:
 - organising work activities
 - soil technology
 - civil works
 - soil compaction theory, including the effects of moisture and mechanical interlock
 - basic field identification tests
 - hand operated mechanical compaction
 - site specifications
- types, characteristics, technical capabilities and limitations of plant and equipment required to spread and compact materials manually, including:
 - mechanical compaction equipment
 - rakes
 - shovels
- materials safety data sheet (SDS) compliance processes
- components of job safety analyses (JSAs), job safety environmental analyses (JSEAs), and safe work method statements (SWMs)
- civil construction terminology related to spreading and compacting materials manually.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to spread and compact materials manually

- 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 Companion Volume 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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