



Australian Government

RIICRC315E Use concreting materials and equipment

Release: 1

RIICRC315E Use concreting materials and equipment

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 use concreting materials and equipment in civil construction, including selecting, using and maintaining hand and power tools, plant and equipment.

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 use concreting materials and equipment	1.1 Obtain, interpret, clarify and confirm work requirements 1.2 Access, interpret and apply documentation required to use concreting materials and equipment and confirm work activity is compliant 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear personal protective equipment according to site requirements 1.5 Identify, obtain, confirm and implement signage requirements 1.6 Obtain and interpret emergency procedures, and identify steps

ELEMENT	PERFORMANCE CRITERIA
	required to respond to emergencies
2. Identify and select materials and tools	2.1 Identify and select concrete materials required for work tasks, and verify condition according to site requirements 2.3 Identify and select hand and power tools according to manufacturer specifications and job and site requirements 2.4 Check lubricants, hydraulic fluid and water according to manufacturer specifications and site requirements 2.5 Check tools and report faults according to manufacturer specifications and site requirements 2.6 Check power tool guards, retaining bolts, couplings, gauges and controls according to manufacturer specifications and site requirements 2.7 Select equipment required to hold or support material according to job and site requirements
3. Use and maintain materials and tools	3.1 Use concrete materials for specified task according to job and site requirements 3.2 Use hand tools for specified task and materials according to manufacturer specifications and job and site requirements 3.3 Use power tools for specified task and materials according to manufacturer specifications and job and site requirements 3.4 Sharpen and maintain tools according to manufacturer specifications and site requirements
4. Identify, select and use plant and equipment	4.1 Check plant and equipment and report faults according to manufacturer specifications and site requirements 4.2 Select and use plant and equipment required for work task according to manufacturer specifications and job and site requirements 4.3 Check lubricants, hydraulic fluid and water according to manufacturer specifications and site requirements 4.4 Maintain plant and equipment according to manufacturer specifications and site requirements
5. Conduct clean-up activities	5.1 Clear work area and dispose of, reuse or recycle material according to site requirements 5.2 Clean, check, maintain and store plant, tools and equipment according to manufacturer specifications and 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 masses 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 RIICRC315D Use concreting materials and equipment.

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 RIICRC315E Use concreting materials and equipment

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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:

- use concreting materials and equipment on at least two occasions, including:
 - identifying and verifying concrete materials, including:
 - aggregates
 - cement
 - form release agents
 - non-toxic materials, including general concreting materials
 - sand
 - water
 - identifying and verifying concrete material components, including:
 - bar chairs
 - bracing
 - plastic membrane
 - reinforcement mesh
 - spacers
 - steel and timber formwork
 - identifying and using specified handling procedures, including for the following:
 - checking hand and power tools and reporting faults, including leads, hoses, tags and serviceability
 - quantity calculations
 - lifting materials for carrying materials
 - waste control
 - using pallets
 - protecting materials
 - stacking and storing of materials

- identifying, selecting and using concrete tools and carrying out required checks, including those relating to:
 - floats
 - shovels
 - screeds
 - vibrating equipment.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures and confirm work activity is compliant
- implement the requirements, procedures and techniques to use of concrete materials and equipment, including:
 - identifying and applying required specifications to all work activities
 - identifying, addressing and reporting potential hazards and risks
 - identifying, obtaining, confirming and implementing signage requirements
 - selecting all plant, tools and equipment required to carry out tasks and checking for faults
 - identifying, addressing and reporting environmental issues
 - using relevant tools appropriate to the task and materials
 - identifying, selecting and using and maintaining plant and equipment
 - clearing work area and disposing of, recycling or storing materials
 - cleaning, checking, maintaining and storing plant, tools and equipment
- work with others to use concrete materials and equipment in a way that meets required outcomes, including:
 - preparing for and organising work activities to meet task requirements
 - communicating with others to receive and clarify work instructions
 - using communication techniques and aids to advise others of work activity and exclusion zones
 - monitoring movements and hazards and identifying and communicating changes to work environment.

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:

- policies, procedures and documentation required to use concrete materials and equipment, including those relating to:
 - site requirements
 - manufacturer specifications for required plant and equipment
 - relevant job specifications
 - hazard and risk management

- environmental protection
- work activity set up procedures
- communication techniques and aids
- signage, erecting barriers and traffic control
- work health and safety
- waste management
- types, characteristics, technical capabilities and limitations of required plant, equipment and concrete materials, including:
 - compressors
 - generators
 - key hand and power tools
 - key concrete materials, including:
 - aggregates
 - cement
 - form release agents
 - non-toxic materials, including general concreting materials
 - sand
 - water
 - key concrete components, including:
 - bar chairs
 - bracing
 - plastic membrane
 - reinforcement mesh
 - spacers
 - steel and timber formwork
- principles and techniques for effective use of concrete materials and equipment, including:
 - quantity calculation techniques for concrete materials and components
 - lifting techniques for carrying concrete materials
 - techniques for protecting concrete materials and components, including water and physical damage
 - techniques for stacking and storing concrete materials
 - waste control techniques.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - required concrete materials and equipment
- 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 (RTOs) 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) and Civil Infrastructure	1	1 year
	2	2 years

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 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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