



Australian Government

Department of Education, Employment and Workplace Relations

RIICRC309A Conduct stabiliser operations

Release: 1

RIICRC309A Conduct stabiliser operations

Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of stabiliser operations in the civil construction industry. It includes planning and preparing, conducting stabiliser pre-operations checks, operating stabilisers, relocating stabilisers, carrying out operator maintenance, 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 operational 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

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
--	---

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Identify and apply relevant drawings and job specifications to all work activities 1.3. Obtain and confirm safety requirements from the site safety plan and organisational policies and procedures, and apply to the allotted task 1.4. Identify, obtain and implement signage requirements from the project traffic management plan 1.5. Determine material to be laid and handling procedures to be employed 1.6. Select plant, tools and equipment to carry out tasks that are consistent with the requirements of the job, check them for serviceability, and rectify or report any faults 1.7. Environmental protection requirements are identified from the project environmental management plan, confirmed and applied to the allotted task
2. Conduct stabiliser pre-operational checks	2.1. Carry out pre-start, start-up, park and shutdown procedures in accordance with manufacturers' and/or site specific requirements 2.2. Check stabiliser controls and functions for serviceability, focusing on brakes, implements or other attachments and manoeuvrability, and rectify or report any faults
3. Operate stabiliser	3.1. Identify site hazards associated with stabiliser operations and use safe operating techniques to minimise risk 3.2. Identify and apply operating techniques for stabiliser to achieve optimum output in accordance with manufacturers' design specifications while achieving specified tolerances 3.3. Operate stabiliser in accordance with company operating procedures

	3.4. Operate stabiliser to produce results, including mixing materials, using <i>additives</i> and line and length
4. Relocate stabiliser	4.1. Move stabiliser safely between worksites in accordance with relevant codes and traffic management requirements 4.2. Prepare stabiliser for relocation
5. Carry out operator maintenance	5.1. Conduct inspection and fault finding in accordance with manufacturers' specifications and/or organisational requirements 5.2. Carry out routine operational servicing and lubrication tasks 5.3. Carry out minor maintenance 5.4. Record performance of machine constantly to enable timely repair of equipment
6. Clean up	6.1. Clear work area and recycle or dispose of materials in accordance with project environmental management plan 6.2. Clean, check, maintain and store plant, 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 conduct stabiliser operations:

- apply legislative, organisation and site requirements and procedures for conducting stabiliser operations
- apply stabilising techniques, including pulverising, mixing, and the use of additives
- apply calculation of material requirements, mix, application rates, uniformity and travel speed
- 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 stabiliser operations:

- basic principles of soil technology for civil works
- stabiliser types, characteristics, technical capabilities and limitations
- operational, maintenance and basic diagnostic procedures
- site isolation and traffic control responsibilities and authorities
- site and equipment safety requirements
- materials safety data sheets and materials handling methods
- project quality requirements
- civil construction terminology
- methods of changing machine attachments
- safe operating techniques in all terrain
- basic earthworks calculations
- civil construction activity sequences of road construction, earthworks and drainage
- levelling techniques
- JSAs/safe work method statement

Evidence Guide

<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 the conduct of stabiliser operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of stabiliser operations • working with others to undertake and complete the conduct of stabiliser operations in a way that meets all of the required outcomes • consistent timely completion of stabiliser operations that safely, effectively and efficiently meets the required outcomes • the conduct of stabiliser operations performed on two separate projects and to include the mandatory tasks stated in the Range Statement and the stabilising of an area of at least 500m² ensuring moisture content, additive application rate, pulverising, mixing, line and length are in accordance with project specifications: this is to be performed utilising two different additive types • the conduct of authorised operator maintenance
<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. • Assessment of this competency requires typical

	<p>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.</p> <ul style="list-style-type: none"> • 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.
<p>Method of assessment</p>	<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 conduct of stabiliser operations
<p>Guidance information for assessment</p>	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

Range Statement

<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"> • 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 operating procedures including recognising and preventing hazards associated with high voltage power lines, uneven/unstable terrain, trees, overhead service lines, bridges, surrounding buildings, obstructions, structures, facilities, dangerous materials, recently filled trenches, other machines, personnel, traffic control, working at heights, working in proximity to others, worksite visitors and the public • safe parking practices including ensuring access ways are clear, equipment/machinery is away from overhangs and refuelling sites, safe distances are kept from excavations, and areas secured from unauthorised access or movement • emergency procedures related to equipment operation including emergency shutdown and stopping, extinguishing equipment fires, organisational First Aid requirements and evacuation

Site may include:	<ul style="list-style-type: none"> • car parks • airport runways • container yards • hard stands • footpaths • bikeways • rural roads and highways • urban roads and highways
Materials may include:	<ul style="list-style-type: none"> • imported fill • aggregates • cement • lime • bitumen • other chemicals
Tools and equipment may include:	<ul style="list-style-type: none"> • hand tools and maintenance equipment relevant to the particular stabiliser
Environmental requirements may include:	<ul style="list-style-type: none"> • organisational/project environmental management plan • waste management • water quality protection • noise • vibration • dust • clean-up management
Hazards may include:	<ul style="list-style-type: none"> • uneven/unstable terrain • trees • fires • overhead and underground services • bridges • buildings • excavations • traffic • embankments • cuttings • structures • hazardous materials
Operate stabiliser may include:	<ul style="list-style-type: none"> • churning up (excavating and remixing) existing fill • refilling in layers using the stabilised material • mixing materials • applying additives

	<ul style="list-style-type: none">• achieving specified line and depth• enhancing the properties of the existing pavement• decreasing permeability• volume change
Additives may include:	<ul style="list-style-type: none">• cement• lime• bitumen• other chemicals where the existing material is not conducive to cement treatment

Unit Sector(s)

Road and Pavements Construction and Maintenance (General)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.