



Australian Government

Department of Education, Employment and Workplace Relations

RIISAM303A Shut down dredge for operator maintenance

Release: 1

RIISAM303A Shut down dredge for operator maintenance

Modification History

Not applicable.

Unit Descriptor

This unit covers shutting down of dredges for operator maintenance in the resources and infrastructure industries. It includes: taking dredge off feed; moving boat lines; checking the ladder; conducting operational maintenance and housekeeping activities

Application of the Unit

This unit is appropriate for those working in operational or maintenance roles, at worksites within:

- Civil Construction
- Extractive industries
- Metalliferous mining

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.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Take dredge off feed	1.1. Access, interpret and apply compliance documentation relevant to the shutting down of dredges for operator maintenance 1.2. Raise and safely secure ladder above water 1.3. Conduct retreat away from working face to safe location to avoid brunt of possible face fall 1.4. Flush out plant 1.5. Adjust spuds and/or cable lengths to ensure dredge remains level on pond
2. Move boat line	2.1. Disconnect main power supply to dredge and plant 2.2. Move float line to new position ensuring enough slack is available for move
3. Check ladder	3.1. Confirm ladder is above water and safely secured 3.2. Check ladder at scheduled time to minimise downtime according to operational plant requirements 3.3. Inspect swing sheave action to assess ladder swing performance 3.4. Inspect cutter components and flush flow 3.5. Maintain communication with dredge operator and maintenance personnel using approved communication methods
4. Conduct operational maintenance	4.1. Visually inspect dredge to identify faults 4.2. Conduct routine operational servicing to ensure peak performance of dredge 4.3. Repair or refer faults to relevant personnel for action
5. Conduct housekeeping activities	5.1. Clean equipment 5.2. Clean and store attachments and equipment 5.3. Complete all required records and documentation accurately and promptly

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 in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to shutdown dredge for operator maintenance:

- apply legislative, organisation and site requirements and procedures
- apply diagnostic techniques
- apply decision making processes
- direct operations
- apply hazard identification procedures
- handle hazardous goods
- interpret ground conditions
- interpret documents, plans, reports, maps, specifications
- apply record maintenance requirements
- apply operational monitoring
- organise work tasks
- apply defect reporting requirements
- employ safe work practices
- select and fit personal protective equipment
- work in a team
- apply troubleshooting techniques
- use communications equipment
- use computer systems

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to shutdown dredge for operator maintenance:

- anchoring procedures
- anchor move procedures
- dredge preparation procedures
- dredging clean-up procedures
- emergency procedures
- environmental and heritage procedures
- equipment processes, technical capability and limitations
- equipment safety requirements
- hazardous goods procedures and consequences of spills

- indicator readings
- isolation procedures
- ladder swing capability and limitations
- ladder maintenance procedures
- site operational system
- monitoring procedures
- night and day working procedures
- OHS procedures
- open cut procedures - dredging
- operational procedures and checks
- shutdown procedures
- site procedures
- site safety requirements
- sounding procedures
- float line movement procedures
- start-up procedures
- centre-line procedures
- dredge manoeuvring procedures
- plant move procedures
- retreat procedures
- side-line cable replacement procedures
- working face dangers

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 shutting down dredges for operator maintenance • implementation of requirements, procedures and techniques for the safe, effective and efficient shutting down of dredges for operator maintenance • working with others to shutdown dredges for operator maintenance that meets all of the required outcomes • consistent timely completion of shutting down dredges for operator maintenance that safely, effectively and efficiently meets the required outcomes
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. • 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. • Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • 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.
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: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to shutdown dredges for operator maintenance
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

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, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Face fall may include:	• collapse on top of dredge • on side or at rear
Plant (processor) requirements may include:	• amount of tonnes • feed requirements • flush out requirements
Spuds may include:	• auxiliary spud (rear of pontoon) • caterpillar hoses • main spud • spud • spud carriage winch • working spud carriage
Adjustments to spuds may include:	• spud lifts and drops (varying degrees)
Ladder checks may include:	• automatic lubricator • barrel • cutlass bearing • cutter • deck hose used in emergency • dredge main pump • gland water • hydraulic oil lines • ladder angle indicating pendulum transmitter • ladder angle striker and sensor limit switches • ladder winch sheaves • mining hose

	• port and starboard carrier sheaves • port and starboard swing sheaves • purge jets • shaft and gearbox • stand-by valve • vacuum relief valve
Cutter components may include:	• cutter teeth • cutlass bearing
Visual inspection may include:	• anchors • cables • centre line indicators • decks • float line • ladder • spuds and carriages
Cleaning methods may include:	• degreasing • forced air • steam cleaning • vacuum • water

Unit Sector(s)

Service and Maintenance

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.