



Australian Government

RIISAM502E Manage general drilling equipment maintenance

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 5.0.

Application

This unit describes the skills and knowledge required to manage movement of stock, plan and organise drilling equipment maintenance and overhauls, evaluate new and used equipment, and maintain inventories of items used on site in drilling.

It applies to those working in management roles. They generally perform tasks involving a high level of autonomy and that require the application of significant judgement in planning and determining the selection of equipment, roles and techniques for themselves and others. They are required to demonstrate the application of a broad range of technical, managerial, coordination and planning skills.

No licensing, legislation or certification requirements apply to this unit at the time of publication.

Unit Sector

Drilling.

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 managing drilling equipment maintenance	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply service and maintenance documentation and confirm work activity is compliant 1.3 Identify and minimise environmental issues and potential hazards, and assess and address risks within scope of own role and according to workplace procedures 1.4 Select and wear personal protective equipment required for work activity 1.5 Communicate with other personnel at site according to work

ELEMENT	PERFORMANCE CRITERIA
	requirements and confirm briefings and handover details are communicated and received
2. Manage movement of stock	2.1 Identify plant, tools and equipment required for equipment maintenance 2.2 Cost and plan delivery of stock, parts and consumables from suppliers according to work requirements 2.3 Prepare and maintain checklist of all materials and spares 2.4 Arrange for materials and spare parts to be stored safely and securely 2.5 Identify wear to parts and relative frequency of replacement and determine replacement costs 2.6 Develop and implement procedures for issue, return and recording of stock movement 2.7 Maintain written records of parts usage according to workplace procedures
3. Plan and organise drilling equipment maintenance and overhauls	3.1 Identify type and frequency of routine maintenance tasks 3.2 Coordinate and communicate equipment maintenance and service, ensuring downtime is minimised 3.3 Monitor performance of routine maintenance schedules, identify and rectify variances 3.4 Investigate and arrange alternate suppliers for obtaining back-up or replacement equipment/stock 3.5 Maintain written maintenance records according to workplace procedures
4. Evaluate new and used equipment	4.1 Test materials and equipment to ensure continuing serviceability 4.2 Monitor availability of new and used equipment 4.3 Evaluate costs/benefits of replacing equipment, and develop recommendations for the purchase/lease of replacement equipment according to work requirements 4.4 Maintain written records and produce reports according to workplace procedures
5. Maintain inventories of all items needed on site	5.1 Monitor individual machine records 5.2 Implement a stock control system to record stock levels, usages and maintain economic stock levels 5.3 Maintain inventory levels, calculate/estimate requirements, place orders for stock and equipment in advance and ensure availability 5.4 Monitor performance of stock control system, identify and rectify variances 5.5 Use approved requisition/purchasing procedures to order

ELEMENT	PERFORMANCE CRITERIA
	parts and supplies 5.6 Implement and maintain a hazardous substances/chemicals register 5.7 Confirm resources/stock required for servicing is available 5.8 Implement procedures to prevent/minimise waste or damage to spare parts in storage 5.9 Report any problems with stock control or availability of parts to relevant personnel

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
Reading	Identifies critical information from the organisational plan, work programs and lease details

Unit Mapping Information

Supersedes and is equivalent to RIISAM502D Manage general drilling equipment maintenance.

Links

Companion Volume implementation guides is found on VETNet -

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

Assessment Requirements for RIISAM502E Manage general drilling equipment maintenance

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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:

- manage general drilling equipment maintenance on at least two occasions, including:
 - costing and planning delivery of stock, parts and consumables
 - ordering stock and scheduling equipment maintenance
 - develop and implementing procedures for issue, return and recording of stock movement
 - testing materials and equipment
 - implementing, maintaining and reviewing an inventory control system.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures
- implement the requirements, procedures and techniques for managing general drilling equipment maintenance, including:
 - monitoring and maintaining stock levels
 - developing a cost/benefit analysis for requisition of replacement equipment
 - ordering equipment and consumables
 - monitoring routine maintenance schedules
 - implementing and maintaining a hazardous substance register
 - planning and preparing for equipment maintenance; managing movement of stock; planning and organising maintenance and overhauls; evaluating new and used equipment; and maintaining inventories of all items needed on site
- work with others to manage general drilling equipment maintenance that meets all the required outcomes, including:
 - complying with written and verbal reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions

- communicating clearly and concisely with others to coordinate work activities.

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:

- key policies and procedures required to manage general drilling equipment maintenance, including those for:
 - hazard and risk identification and management
 - statutory compliance
 - work health and safety
 - environmental issues
 - policy management
 - equipment maintenance
 - managing stock movement
 - storing materials and parts
 - costing and purchasing
- procedures for identifying wear parts and relative frequency of replacement
- purpose of stock control.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to manage general drilling equipment maintenance
- 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) 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 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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