



Australian Government

RIISAM215D Carry out drilling industry operational maintenance

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIISAM215A Carry out drilling Industry operational maintenance
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to carry out operational maintenance in Drilling.

This unit is appropriate for those working in operational roles.

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

Unit Sector

Drilling

Elements and Performance Criteria

1. Plan and prepare to carry out drilling Industry operational maintenance	1.1 Access, interpret and apply drilling service and maintenance documentation and ensure the work activity is compliant
	1.2 Obtain, read, interpret, clarify and confirm work requirements
	1.3 Identify and address potential risks, hazards and environmental issues, and implement control measures
	1.4 Select and wear appropriate personal protective equipment for the work activity Communicate and coordinate activities with others throughout the work activity
	1.5 Obtain and interpret emergency procedures and be ready for fire/accident/emergency
2. Carry out	2.1 Carry out pre drilling checks

pre-drilling checks and maintenance	2.2 Complete workplace and/or site documentation 2.3 Access and apply lubrication schedule 2.4 Top up fluid levels and bleed lines 2.5 Check filters and clean/replace 2.6 Check security of all circulation systems 2.7 Ensure cabin and windscreen are clean and seat belts and windscreen washer function
3. Perform machine checks	3.1 Carry out equipment inspection, servicing and lubrication 3.2 Identify faults or potential faults 3.3 Observe isolation/tag out/lock out procedures 3.4 Identify, record and/or report requirement for repair or maintenance and critical time line for rectification 3.5 Monitor effectiveness of maintenance performed
4. Maintain all down hole tools and other drilling consumables	4.1 Carry out component maintenance 4.2 Maintain and store tools and consumables
5. Perform machinery maintenance	5.1 Access and apply scheduled machinery servicing, maintenance and overhauls 5.2 Use tag out/lock out when servicing 5.3 Carry out minor servicing of equipment 5.4 Carry out routine inspection, servicing, lubrication and housekeeping tasks 5.5 Read and apply instructions on maintenance procedures, lubrication tasks and filter change/service 5.6 Identify, record and replace worn parts 5.7 Conduct diagnostic and troubleshooting techniques and take remedial action 5.8 Identify operational faults in and maintain hydraulic systems 5.9 Report service and repair requirements and take remedial action
6. Perform equipment and machinery field repairs	6.1 Isolate and rectify equipment faults 6.2 Identify extent of repair needed and obtain spare parts 6.3 Identify, select and use tools required for maintenance and repairs

	6.4	Identify and return re-usable parts/components or accessories
	6.5	Review equipment and re-set in response to site conditions
	6.6	Identify system faults and formulate appropriate responses within agreed time lines
	6.7	Maintain service records
	6.8	Dismantle, assess, service, repair, reassemble and test drill components

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIISAM215A Carry out drilling industry operational maintenance

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIISAM215D Carry out drilling industry operational maintenance

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- works effectively with others to carry out drilling industry operational maintenance that meets all of the required outcomes including:
 - organising work activities to meet all task requirements
 - communicating clearly and concisely with others to receive and clarify work instructions
 - communicating clearly and concisely with others to resolve coordination requirements prior to commencing and during work activities
- demonstrates completion of carrying out drilling industry operational maintenance that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - planning and preparing for operational maintenance tasks including:
 - carrying out pre-drilling checks and maintenance
 - performing machine checks
 - maintaining and store tools and consumables
 - completing maintenance including:
 - equipment inspection, servicing and lubrication
 - fault identification
 - isolation/tag out/lock out
 - machinery maintenance

- field repairs
 - completing workplace and/or site documentation

Knowledge Evidence

The candidate must demonstrate knowledge in carrying out drilling Industry operational maintenance through:

- Accessing, interpreting and applying organisational and site requirements and procedures for:
 - environmental protection
 - isolation and tag out
 - documentation and reporting
 - work, health and safety
 - hazard identification and risk control
 - Job Safety Analysis (JSA)
 - hazardous goods handling
 - tag out/lock out
 - selection and use of hand and power tools
 - verbal and written communication
- applying manufacturer's maintenance requirements and procedures
- identifying characteristics, technical capabilities and limitations of equipment
- identifying mechanical/electrical/hydraulic systems and power tools characteristics
- identifying lubricants and their uses
- identifying and interpreting all engine, electric and hydraulic indicators and gauges
- identifying transmission and drive systems

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,

- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 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.	

*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 frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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