



Australian Government

RIIOGD404E Coordinate air drilling operations

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 coordinate air drilling operations in drilling.

This unit applies to those working in supervisory roles. They generally perform tasks involving a broad range of varied activities most of which are complex and non-routine and are responsible for the quantity and quality of the output of others.

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

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 coordination of air drilling operations	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to coordinate air drilling operations 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 activities 1.5 Communicate with other personnel at site according to work requirements and confirm briefings and handover details are

ELEMENT	PERFORMANCE CRITERIA
	communicated and received 1.6 Apply air drilling and conventional mud drilling techniques 1.7 Apply work health and safety and emergency procedures
2. Examine correct air drilling procedures	2.1 Obtain, interpret, confirm and apply pre-tour and pre-drilling checklists 2.2 Identify components that make up an air drilling package and explain their use to crew members 2.3 Identify and apply parameters to watch during work activity 2.4 Identify and secure crew numbers and expertise 2.5 Identify and confirm conditions required to initialise the drilling of new holes 2.6 Identify, explain and carry out test procedures with crew 2.7 Identify and explain tripping procedures to crew and apply 2.8 Determine and implement required communication and record keeping procedures
3. Conduct housekeeping activities	3.1 Clean, check, perform maintenance on and store plant, tools and equipment 3.2 Report issues identified with plant, tools and equipment

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 and interprets complex information from workplace procedures, documentation and regulations

Unit Mapping Information

Supersedes and is equivalent to RIIOGD404D Coordinate air drilling operations.

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 RIIOGD404E Coordinate air drilling operations

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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:

- coordinate air drilling operations on at least two occasions, including:
 - applying air drilling and conventional mud drilling techniques
 - watching parameters during operations
 - performing calculations, including:
 - annular velocity
 - sinking/slipping velocity
 - pressure
 - flow test procedure
 - volume
 - converting between metric and imperial
 - using a calculator.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures
- implement the requirements, procedures and techniques for the coordination of air drilling operations through:
 - identifying, addressing and reporting potential hazards and risks
 - implementing emergency response plan and procedures
 - identifying, addressing and reporting environmental issues
 - rectifying any identified faults and malfunctions within scope of own role and escalating where required
- work with others to coordinate air drilling operations 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 a range of communication techniques and aids to advise others of work activity and exclusion zones.

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 legislation required to coordinate air drilling operations
- key policies, procedures and established requirements for coordinating air drilling operations, including those for:
 - identifying and managing risks
 - site isolation, signage and erecting barriers
 - work health and safety
 - environmental issues
 - selecting all plant, tools and equipment to carry out tasks and checking for faults
 - carrying out work to specifications
 - communication techniques relevant to work activities
 - explaining tripping procedures to crew
 - determining pressure volume requirements
 - maintaining air requirements
- calculations, including those for:
 - annular velocity
 - sinking/slipping velocity
 - pressure
 - flow test procedure
 - volume
 - metric and imperial conversions.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to coordinate air drilling operations
- 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	

Industry sector	AQF indicator level***	Required assessor 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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