



Australian Government

RIIOGD209F Operate and maintain ancillary equipment

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 operate and maintain ancillary equipment in drilling. It prepares individuals to operate and maintain pumps, gate valves associated with mud system, chemical mixing pumps and equipment.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures.

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 operating and maintaining ancillary equipment	1.1 Obtain, read and confirm work requirements 1.2 Access, interpret and apply operations and maintenance for ancillary equipment 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 the personal protective equipment required for work activity 1.5 Communicate with other personnel on site as required and confirm briefings and handover details are communicated and

ELEMENT	PERFORMANCE CRITERIA
	received 1.6 Confirm availability and status of necessary permits to work 1.7 Confirm availability of necessary third party utilities
2. Maintain pumps	2.1 Inspect pumps for leaks and abnormal operation 2.2 Lubricate pumps as required
3. Operate, maintain and repair gate valves associated with mud system	3.1 Align, open and close valves as required 3.2 Lubricate valve stems as required 3.3 Identify defective parts in valves and replace as required
4. Operate and maintain chemical mixing pumps and equipment	4.1 Identify faults and potential faults and report immediately or rectify within scope of own role 4.2 Identify, record in writing and report as required need for pump and equipment repair or maintenance 4.3 Perform equipment checks as scheduled according to operational requirements and workplace procedures 4.4 Line up valves according to job requirements 4.5 Engage mixing and transfer pumps according to job requirements 4.6 Lubricate valves, mixing pumps and transfer pumps as required 4.7 Replace defective and malfunctioning parts and valves on pumps as required 4.8 Clean and inspect mixing hopper and mixing area according to workplace procedures 4.9 Isolate equipment as required

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
Oral communication	Listens to short, explicit instructions for work procedures and asks questions to clarify and confirm
Writing	Produces and completes workplace reports using appropriate vocabulary, grammatical structures and conventions
Self-management	Monitors and minimises own exposure to worksite hazards during activities

Unit Mapping Information

Supersedes and is equivalent to RIIOGD209E Operate and maintain ancillary equipment.

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 RIIOGD209F Operate and maintain ancillary equipment

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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:

- operate and maintain ancillary equipment on at least two occasions, including:
 - performing equipment checks on five separate pieces of equipment from the following list:
 - mixing pumps
 - change pumps
 - desander
 - desilter
 - centrifuges
 - degaser
 - piping
 - valves
 - agitators
 - caustic mixing system
 - mud guns
 - mixing hoppers
 - shearing devices
 - pit volume totaliser (PVT) system
 - pit volume totaliser
 - lubrication pumps
 - bolt material system
 - chemical handling system
 - dust/fuel extraction system
 - lubricating valve stems
 - replacing defective parts in valves
 - operating and maintaining chemical mixing pumps and equipment

- cleaning and inspecting mixing hopper and mixing area.

During the above, the candidate must:

- locate and apply documentation required for operating and maintaining ancillary equipment
- implement the requirements, procedures and techniques for completing ancillary equipment operation and maintenance, including:
 - maintaining pumps
 - recognising and reporting equipment malfunction or failure
 - aligning, opening and closing valves as required
 - isolating and locking out equipment as required
 - using fire protection, First Aid and other safety equipment as required
- work with others to operate and maintain ancillary equipment that meets required outcomes, including:
 - working as directed by driller in timely and efficient manner.

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:

- company and statutory safety guidelines, procedures and practices
- key policies, procedures and established requirements for operating and maintaining ancillary equipment, including those for:
 - operating equipment
 - rig maintenance
 - normal drilling operations
 - non-routine drilling operations
 - using specialised hand tools
 - equipment isolation
 - communicating with other personnel prior to commencing, during and on completion of work activities
- mud system ancillary equipment types, functions and operating procedures
- discharge types and characteristics, including liquids, gases and solids
- material characteristics, including flammable, toxic, corrosive and explosive
- permit to work system
- drilling team roles and objectives.

Assessment Conditions

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

- include access to:

- personal protective equipment
- ancillary equipment
- 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 (RTOs) 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
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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.

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