



Australian Government

RIISAM209E Carry out operational 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 carry out operational maintenance in the resources and infrastructure industries.

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 and take responsibility for the quality of own work outcomes.

Licensing, legislative and certification requirements may apply to this unit and can vary between states, territories and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Drilling

Metalliferous mining

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 to carry out operational maintenance	1.1 Obtain, interpret, and confirm work requirements 1.2 Access, interpret and apply documentation and procedures 1.3 Identify and address potential risks, hazards and environmental issues, and implement control measures within scope of own role and according to workplace procedures 1.4 Select and wear personal protective equipment required for the work activities 1.5 Obtain and interpret emergency procedures and prepare for emergency situations within scope of own role 1.6 Determine coordination requirements with others prior to

ELEMENT	PERFORMANCE CRITERIA
	commencing and during work activities
2. Perform prestart checks and maintenance	2.1 Inspect and carry out prestart checks on equipment 2.2 Complete site and company checklist sheets 2.3 Lubricate all systems according to workplace procedures 2.4 Check and top up fluid levels and bleed according to workplace procedures 2.5 Check filters and clean or replace as required according to workplace procedures 2.6 Check security of all circulation systems 2.7 Check safety appliances are fitted and meet requirements for workplace activities 2.8 Keep cabin, seat belts and windscreen clean and windscreen washer functioning according to manufacturer specifications
3. Perform equipment checks	3.1 Carry out timed and regular equipment checks and record details 3.2 Identify faults and potential faults and report immediately to relevant personnel 3.3 Obtain and confirm isolation, tag out and lock out procedures 3.4 Identify, record and report equipment that requires repairs or maintenance in a timely manner 3.5 Monitor the effectiveness of maintenance performed
4. Carry out hot work	4.1 Clear area around the worksite of flammable material 4.2 Position fire extinguishers at company recommended locations 4.3 Undertake hot work in compliance with regulatory and worksite fire controls 4.4 Communicate with spotter during hot work operations 4.5 Inspect the worksite to confirm that no potential exists for later combustion
5. Perform equipment maintenance	5.1 Perform scheduled equipment, components and consumables servicing, maintenance and overhauls according to workplace procedures 5.2 Use tag out or lock out procedures to isolate the equipment during servicing 5.3 Carry out minor servicing of equipment in a timely manner according to workplace procedures 5.4 Carry out routine inspections, servicing, lubrication and housekeeping tasks according to workplace procedures 5.5 Identify and change used parts and record the frequency of replacement 5.6 Identify operational faults in and maintain hydraulic, pneumatic and drive systems according to workplace procedures

ELEMENT	PERFORMANCE CRITERIA
	5.7 Record details of maintenance action completed 5.8 Inspect and check plant and equipment for serviceability, and identify, rectify and report any faults
6. Perform field repairs	6.1 Isolate and rectify equipment faults according to workplace procedures 6.2 Identify the extent of repair needed and obtain the required parts 6.3 Identify, select and use tools required for maintenance and repairs 6.4 Return the re-usable tools and parts 6.5 Recognise system faults and formulate appropriate responses within agreed timelines 6.6 Maintain records of action taken 6.7 Dismantle, assess, service, repair, reassemble and test components

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
Writing	Produces and completes written documents required for workplace procedures
Numeracy	Calculates resource requirements, including use of basic addition, subtraction, multiplication and division
Self-management	Monitors and minimises own exposure to worksite risks and hazards during activities

Unit Mapping Information

Supersedes and is equivalent to RIISAM209D Carry out operational 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 RIISAM209E Carry out operational 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:

- carry out of operational maintenance on at least two occasions, including:
 - carrying out prestart checks on equipment as per maintenance requirements
 - performing equipment maintenance and field repairs
 - monitoring maintenance effectiveness
 - undertaking hot work.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures and confirm that the work activity is compliant
- work with others to undertake operational maintenance
- implement the requirements, procedures and techniques required to carry out operational maintenance
- communicate with others to receive and clarify work instructions and to determine coordination requirements prior to commencing and during 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, procedures and documentation required to carry out operational maintenance, including those related to:
 - work health and safety procedures
 - emergency procedures
 - environmental issues
 - hot work
 - fire prevention and control

- mechanical, electrical and hydraulic systems and power tools
- isolation and tag out procedures
- records and reports on maintenance actions
- equipment and material types, characteristics, technical capabilities and limitations, including:
 - lubricants use
 - electric indicators
 - hydraulic indicators
 - gauges
 - transmission and drive systems
- key industry and worksite terminology.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to carry out operational maintenance
 - relevant documentation
- 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
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 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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