



Australian Government

RIIHAN310D Conduct crane operations underground

Release: 3

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Modification History

Release	Comment
1	This unit replaces RIIHAN310A Conduct crane operations underground.
2	Editorial corrections; Amend reference to Licensing requirements in Unit Application
3	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 conduct crane operations underground in Coal and Metalliferous mining.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories and industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Coal mining

Metalliferous mining

Elements and Performance Criteria

1. Plan and prepare to conduct crane operations underground	1.1 Access, interpret and apply crane operations documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Select and wear personal protective equipment appropriate for work activities 1.4 Check indicators and perform pre-start checks on equipment and attachments
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	1.5 Identify and address potential risks, hazards and environmental issues, and implement control measures 1.6 Carry out start-up procedures 1.7 Communicate with other equipment operators and personnel using approved communication methods 1.8 Scale loose material and make site safe 1.9 Use approved dust suppression and extraction methods 1.10 Ensure area is well ventilated before entry into work area
2. Lift and shift load	2.1 Determine rigging and slinging requirements after assessing site and load conditions 2.2 Determine lifting technique according to the nature of the load being moved and the required location 2.3 Operate equipment within work environment and equipment limitations, using safe driving conventions 2.4 Monitor and manage equipment performance using appropriate indicators/gauges 2.5 Assess ground conditions, position equipment ensure stability of crane and safety of other equipment and personnel 2.6 Complete all written documentation clearly, concisely and on time 2.7 Pass on written or verbal end of shift information to oncoming shift
3. Carry out operator maintenance	3.1 Carry out shutdown procedures 3.2 Service and make minor adjustments to equipment 3.3 Visually inspect equipment, report faults in writing or verbally, and make equipment available for routine operational servicing
4. Conduct housekeeping activities	4.1 Clean equipment and work area 4.2 Clean and store ancillary service equipment

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

RIIHAN310A Conduct crane operations underground

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 RIIHAN310D Conduct crane operations underground

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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
- implements the requirements, procedures and techniques for the safe, effective and efficient conduct of crane operations underground including:
 - dogging
 - driving
 - interpreting ground conditions
 - lifting
 - monitoring loads
 - using hand and power tools
 - towing
 - refuelling vehicles
- works effectively with others to undertake and complete crane operations underground that meet all of 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 requirements prior to commencing work activities
- demonstrates completion of conducting crane operations underground that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - lifting and shifting load
 - operating, maintaining and cleaning equipment
 - monitoring, assessing and addressing equipment performance
 - determining rigging and slinging requirements
 - determining lifting techniques
 - carrying out shutdown procedures
 - inspecting equipment and reporting faults

Knowledge Evidence

The candidate must demonstrate knowledge of the following when conducting crane operations underground:

- techniques for calculating safe working loads
- safety data sheet and materials handling methods
- safe operating techniques in varying terrain
- geological and technical data (basic)
- equipment processes, technical capability and limitations

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 is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated 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; 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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