



Australian Government

RIIBLA308D Conduct electronic blasting operations

Release: 1

RIIBLA308D Conduct electronic blasting operations

Modification History

Release	Comment
1	This is the first release of this unit.

Application

This unit describes a participant's skills and knowledge required to conduct electronic blasting operations in the metalliferous mining, coal mining and extractive sectors.

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 Sectors

Metalliferous mining

Coal mining

Extractive

Elements and Performance Criteria

1. Plan and prepare to conduct electronic blasting operations	1.1 Access, interpret and apply shotfiring documentation and ensure the work activity is compliant 1.2 Obtain, confirm and apply shotfiring requirements and work instructions before proceeding 1.3 Identify, manage and report all potential hazards, risks and environmental issues 1.4 Select and wear personal protective equipment appropriate to the work activities 1.5 Obtain and interpret emergency procedures and be prepared for fire/accident/emergency 1.6 Coordinate vehicle, equipment and personnel support requirements 1.7 Arrange and ensure assessment of blast area is complete, records are maintained and reported to appropriate personnel
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	1.8 Access, interpret and apply geological data required to complete the work 1.9 Carry out calculations to enable pattern design, loading and tying in of shots as per manufacturer specifications 1.10 Identify and confirm the explosives and accessories required for the work 1.11 Identify and manage the condition of electronic blasting system equipment required for charging and firing the blast
2. Supervise the storage and transport of explosives and accessories	2.1 Ensure explosives and accessories are safely and correctly stored 2.2 Ensure inventory control systems are accurately and correctly maintained 2.3 Ensure firing keys and/or codes are kept secure 2.4 Ensure explosives and accessories are transported to blast area and segregate correctly 2.5 Ensure that explosives are not left unattended 2.6 Identify and dispose of any deteriorated or out of date explosives and accessories correctly
3. Prepare for charging	3.1 Secure shot area in accordance with procedures and blast plan 3.2 Establish and communicate access routes to shot site for authorised persons and vehicles 3.3 Identify blasthole locations and any non-conforming conditions in preparation for charging 3.4 Establish stemming stockpile (if appropriate) and accessories on shot site
4. Charge and stem blastholes	4.1 Supervise blast personnel during charging operations 4.2 Prime and charge blastholes in accordance with the blast plan and any non-conforming conditions 4.3 Ensure blastholes are stemmed in accordance with the blast plan 4.4 Inspect equipment and accessories used for charging 4.5 Maintain records
5. Conduct tie-in of the electronic blasting system	5.1 Obtain and confirm electronic timing plan 5.2 Conduct scanning/logging/tagging of detonators 5.3 Connect to the harness/busline 5.4 Test for leakage

	5.5 Diagnose and fault-find errors
	5.6 Check system communications
6. Conduct the blast	6.1 Carry out pre blasting procedures and establish exclusion zone 6.2 Supervise all personnel during initiation 6.3 Conduct final system checks 6.4 Initiate the blast safely 6.5 Carry out and record activities in accordance with the blast plan
7. Complete post blast activities	7.1 Carry out post blast inspection 7.2 Deal with any identified misfires 7.3 Declare area safe for re-entry 7.4 Complete reports
8. Carry out equipment maintenance	8.1 Carry out equipment inspection, care and maintenance after shotfiring operations 8.2 Maintain maintenance records

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

Code and title Current version	Code and title Previous version	Comments	Equivalence status
RIIBLA308D Conduct electronic blasting operations	This is the first release of this unit	Release 1	No equivalent unit.

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 RIIBLA308D Conduct electronic blasting operations

Modification History

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1	This is the first release of this unit.

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 undertake and complete conducting electronic blasting operations 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 resolve coordination requirements prior to commencing and during work activities
 - conducting pre-blast briefings
- demonstrates consistent timely completion of blasts using electronic blasting systems that safely, effectively and efficiently meet the required outcomes on more than one (1) occasion including:
 - inspecting blast bench for hazards
 - transporting and supervising explosives and accessories
 - preparing and securing the shot area
 - unpacking, checking, laying out and priming blastholes according to the blast plan
 - charging blastholes, stemming blastholes and testing detonators using specialist equipment
 - identifying the blasting position, considering communication method
 - identifying and solving any errors or non-conforming conditions, communicating and escalating issues with responsible personnel
 - identifying potential misfires
 - programming and initiating the blast
 - conducting post-blast inspection, addressing misfires and communicating with team for safe re-entry

- returning surplus explosives and detonators

Knowledge Evidence

The candidate must demonstrate knowledge of the following when conducting blasts using electronic blasting systems:

- Australian Standards and Codes of Practice
- site and equipment safety policies, procedures, legislative requirements and reporting requirements
- site risk management processes and their applications
- site specific management such as:
 - traffic management
 - road closures
 - rail closures
 - power-line shut-downs
- site security management
- magazine keeping rules and regulations
- shotfiring terminology
- interpreting blast plans
- planning processes
- analysis of site geological and survey data
- selection of appropriate explosives to meet site/ground conditions
- environmental requirements including: ground vibration; airblast; dust; fumes; wind speed and direction; chemicals
- the operating specifications of the specific electronic blasting systems being used, including:
 - common errors
 - equipment characteristics
 - technical capabilities and their applications
 - system limits
 - fault-finding and diagnosis of faults

Assessment Conditions

- Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors; 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.

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