



Australian Government

Department of Education, Employment and Workplace Relations

RIIBLA201A Support shotfiring operations

Release: 1

RIIBLA201A Support shotfiring operations

Modification History

Not applicable.

Unit Descriptor

This unit covers the supporting of shotfiring operations in resources and infrastructure industries. It includes planning and preparing for and supporting of blast site operations.

Application of the Unit

This unit is appropriate for those working in a operational support roles, at worksites within:

- Civil construction
- Surface coal mining
- Drilling
- Extractive industries
- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare for supporting of blast site operations	1.1. Access, interpret and apply compliance documentation relevant to the supporting of shotfiring operations 1.2. Obtain, confirm and apply work instructions for the allocated task 1.3. Access, interpret and apply geological and survey data and weather conditions required to complete the allocated work 1.4. Identify, manage and report all potential hazards 1.5. Resolve coordination requirements with others at the site prior to commencing and during work activities 1.6. Identify and test the explosives and accessories to be used for the allocated task 1.7. Recognise and respond to hazardous and emergency situations 1.8. Check blast holes
2. Provide support at the blast site	2.1. Prepare and mix explosives in accordance with shot requirements 2.2. Pick up, carry and transport explosives and accessories on the shot site in required sequence 2.3. Assist in securing and isolating blast area in accordance with instructions 2.4. Prime, load, stem and tie in the explosive in accordance with instructions 2.5. Carry out site clean up operations according to instructions 2.6. Prepare and process reports and/or records of their support activities and others as directed

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to support shotfiring operations:

- apply legislative, organisation and site requirements and procedures for supporting blast site operations
- apply hazard identification and risk management processes
- apply operational safety requirements
- read, interpret and apply technical information
- apply blast site explosives storage control requirements
- apply explosives mix and handle requirements
- apply driving requirements and procedures for explosives transport vehicles
- apply the requirements for securing and isolating blast area
- apply explosives loading, stemming and tying in procedures
- apply record keeping procedures

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to support shotfiring operations:

- blast plan
- site security plan
- applicable legislation and reporting requirements
- site operational safety requirements
- hazardous goods handling and transport procedures
- blasting techniques and procedures
- types, physical and technical characteristics, uses and limitations of explosives
- explosive handling, transportation and storage requirements
- explosives transport vehicle driving regulations, rules and conventions
- site geological and survey data
- hazard identification and risk management processes
- site environmental requirements and constraints

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following: • knowledge of the requirements, procedures and instructions for supporting of shotfiring operations • implementation of requirements, procedures and techniques for the safe, effective and efficient supporting of shotfiring operations • working with others to undertake and complete the shotfiring operations that meet all of the required outcomes • consistent timely completion of shotfiring operations that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	• This unit must be assessed in the context of the 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 workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second

	language issues. • Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to undertake and complete shotfiring operations
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant compliance documentation

may include:

- legislative, organisation and site requirements and procedures
- manufacturer's guidelines and specifications
- Australian standards
- code of practice
- Employment and workplace relations legislation
- Equal Employment Opportunity and Disability Discrimination legislation

Work instructions may come from briefings, handovers, plans and work orders and may be written or verbal, formal or informal and may include:

- nature and scope of tasks
- detailed responsibilities and coordination issues and requirements
- site layout
- essential survey data and locations
- essential geological information
- known information on blast holes, including:
 - alignment and location problems
 - obstructions or voids
 - wet holes
- specifications and equipment requirements
- transport and storage issues and requirements
- quality of finished works
- timings for preparation
- achievement targets
- operational conditions
- public relations
- out of bounds areas
- worksite inspection requirements
- lighting conditions
- plant or equipment defects
- hazards and potential hazards
- coordination requirements or issues
- environmental control requirements
- waste management requirements

	• barricade and signage requirements
Hazards may include:	• chemical energy, including: • premature explosion • deterioration of explosives • stored energy • working environment, including: • weather conditions • insufficient illumination • NO_x gases • poor road or rail conditions • ground conditions • fire/flames/ignition sources • atmospheric contaminants • dust • noise • lack of ventilation • extraneous electricity e.g. static electricity, lightning • equipment and materials, including: • faulty vehicle • faulty equipment • electricity • radio frequencies and transmitters • hot exhaust system • people, including: • speeding • unauthorised persons • theft or unexplained loss of explosives • processes and procedures, including: • manual handling injuries
Coordination requirements may include	• shotfirer • blasting team • explosives mixing and delivery personnel • mobile and other equipment operators • maintenance personnel • supervisors • other worksite personnel
Test may include:	• rated capacity of exploder or blasting machine • burning rate of safety fuse • resistance of detonators

	• continuity and insulation of firing lines • serviceability
Explosives and accessories may include:	• high and low explosives • bulk or packaged explosives • permitted explosives • shaped charges • detonators • detonating cords and signal tubes and connectors • detonation mechanisms including: • bell wire and firing lines • delay mechanisms • blasting machines or mains firing equipment • exploder and circuit tester • safety fuses • binding tape • pressure loader • venturi loader • non ferrous tools (copper to remove obstructions from blast hole) • approved cord cutters
Check includes:	• hole depth or length • blockages • direction • presence of water
Securing and isolating the blast area may include:	• witches hats • tapes • signs, including: • pegs • flags • use of radios • ropes • windrow fencing • bund wall

Unit Sector(s)

Blasting

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.