



Australian Government

RIIBLA305E Conduct secondary blasting

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 conduct secondary blasting in the coal and metalliferous mining and extractive sectors. It includes pre-blasting and post-blasting activities to support blasts.

It applies to those working in operational roles. They generally work under minimal supervision to undertake a broad range of skilled applications in varied work contexts, using some discretion and judgement in selecting equipment, services or contingency measures.

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

Coal mining

Extractive

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 conduct secondary blasting	1.1 Obtain, interpret, confirm and clarify blasting management plan and blast plan requirements 1.2 Access, interpret and apply blasting documentation and confirm work activity is compliant 1.3 Identify, manage and report potential hazards, risks and environmental issues according to legislative and site requirements 1.4 Select and wear personal protective equipment according to legislative and site requirements

ELEMENT	PERFORMANCE CRITERIA
	1.5 Obtain and interpret emergency procedures and confirm steps required to respond to emergencies 1.6 Carry out calculations for pattern design, loading and tying in of shots 1.7 Identify and confirm the explosives and accessories according to site requirements 1.8 Coordinate vehicle, equipment and personnel support requirements within scope of own role 1.9 Manage environmental issues according to site requirements 1.10 Confirm area is free of blasting fumes before entry into work area
2. Conduct blasting	2.1 Carry out pre-blasting procedures and establish exclusion zone according to site requirements 2.2 Use explosives and/or techniques according to blast plan and site requirements 2.3 Activate warnings and notify relevant personnel of intended blasting according to site requirements 2.4 Hook up and initiate blast according to manufacturer specifications and site requirements
3. Complete blasting operations	3.1 Carry out post-blasting coordination and declare area safe for re-entry according to site requirements 3.2 Inspect site and address non-conforming conditions according to site requirements 3.3 Inspect equipment for defects and conduct housekeeping activities according to site requirements 3.4 Complete reports according to site requirements 3.5 Pass on end of shift information to oncoming shift according to site requirements

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
Numeracy	Calculates measurements, masses and dimensions
Reading	Identifies and interprets information from workplace documentation
Self-management	Monitors and minimises own exposure to worksite risks and hazards during activities

SKILL	DESCRIPTION
Writing	Completes workplace reports using sector-specific vocabulary, grammatical structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIIBLA305D Conduct secondary blasting.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIBLA305E Conduct secondary blasting

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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:

- conduct secondary blasting on at least two occasions.

During the above, the candidate must:

- locate and apply relevant documentation and procedures and confirm work activity is compliant
- work effectively with others to plan, prepare and conduct blasting operations, including:
 - complying with reporting requirements and procedures
 - communicating clearly and concisely with others to:
 - receive and clarify work instructions
 - resolve coordination requirements within scope of own role.

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 procedures and documentation required to conduct secondary blasting, including:
 - blasting management and blast plan
 - site security plan
 - Australian standards and code of practice
 - site and equipment safety procedures
 - planning processes
- techniques for applying basic geological and technical information
- techniques for applying adequate powder factor, maximum instantaneous charge (MIC), flyrock controls and exclusion zones
- site environmental requirements and constraints, including those relating to:

- chemicals
- airborne contaminants, including dust and fumes
- noise, vibration and airblast overpressure
- hot, reactive and fibrous ground
- types, physical and technical characteristics, uses and limitations of explosives, accessories, equipment and associated protection and management measures
- principles and techniques for selecting appropriate explosives to meet site conditions
- principles and techniques for secondary blasting risk management, including those for applying appropriate controls to identified risks
- principles and techniques for inspecting and addressing non-conforming conditions and non-conformities, including:
 - misfires
 - blockages
 - break through
 - deviation
 - undercut
 - ground conditions
 - ventilation
 - water/wet holes
 - hot ground
- principles and techniques for identifying and responding to relevant hazards and emergencies
- techniques for coordinating job activities with others.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to conduct secondary blasting
- 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:

- possessing and maintaining a current shotfirer's licence issued by a state/territory regulatory body endorsed for the applicable type of blasting
- 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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