



Australian Government

RIIBLA402E Monitor and control the effects of blasting on the environment

Release: 1

RIIBLA402E Monitor and control the effects of blasting on the environment

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 monitor and control the effects of blasting on the environment in civil construction, coal and metalliferous mining and extractive sectors. It includes evaluating environmental hazards and controls, implementing environment monitoring systems, and reviewing and auditing strategies.

It applies to those working in technical specialist roles. They generally contribute to the development of technical solutions to complex and non-routine problems.

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

Civil construction

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. Develop strategies to control effects of blasting on the environment	1.1 Access, interpret and apply blasting documentation and confirm work activity is compliant 1.2 Identify and evaluate environmental hazards and controls, resulting from blasting, according to site requirements 1.3 Identify and analyse objectives and criteria for safe and effective blast monitoring

ELEMENT	PERFORMANCE CRITERIA
	1.4 Evaluate and select monitoring device options according to site requirements 1.5 Prepare procedures for installing, establishing and operating monitoring systems 1.6 Formulate monitoring system maintenance program and procedures according to site requirements 1.7 Determine procedures for auditing, reviewing and updating of monitoring system according to site requirements 1.8 Select and wear personal protective equipment according to site requirements 1.9 Obtain and interpret emergency procedures and confirm steps required to respond to emergencies
2. Implement environment monitoring systems	2.1 Implement procedures for monitoring, recording and reporting on environmental controls according to site requirements 2.2 Implement procedures for installing and operating monitoring systems and equipment according to site requirements 2.3 Implement procedures for collecting and analysing environmental data according to site requirements 2.4 Process, record and report monitoring system data according to site requirements 2.5 Interpret measured data, compare with statutory and site requirements and implement identified actions
3. Review strategies	3.1 Audit effectiveness of environmental control system in order and confirm blasting standards comply with statutory and environmental management plan requirements 3.2 Audit effectiveness of environmental control system in order and confirm that monitoring systems comply with statutory requirements 3.3 Audit effectiveness of environmental control system and confirm that recording systems are maintained according to site requirements and data is processed according to environmental management plan requirements 3.4 Review monitoring system and confirm that standards comply with legislative and 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, products and ratios
Oral communication	Conveys information and requirements clearly and listens carefully
Reading	Identifies and interprets information from workplace documentation and legislation
Writing	Completes workplace and legislative documentation using sector-specific vocabulary, grammatical structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIIBLA402D Monitor and control the effects of blasting on the environment.

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 RIIBLA402E Monitor and control the effects of blasting on the environment

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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:

- monitor and control the effects of blasting on the environment on at least two occasions, including:
 - planning and coordinating work
 - controlling the effects of blasting
 - identifying and evaluating environmental hazards and controls resulting from blasting and assessing their impact on blast design, including:
 - noise, vibration and airblast overpressure
 - flyrock
 - airborne contaminants, including dust and fumes
 - water pollution
- auditing data and applying data to blasting strategies.

During the above, the candidate must:

- locate and apply legislation, documentation and procedures
- work effectively with others to plan, prepare and conduct the monitoring and control of the effects of blasting, including:
 - complying with reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions
 - providing clear and timely instruction and supervision of those involved in monitoring and controlling the effects of blasting.

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 legislation required to monitor and control the effects of blasting on the environment, including explosives and safety and health legislation
- key procedures and documentation required to monitor and control the effects of blasting on the environment, including maintenance surveys and procedures
- effects of differing geological features and conditions on environmental conditions, including:
 - noise, vibration and airblast overpressure
 - flyrock
 - airborne contaminants, including dust and fumes
 - water pollution
- effects of blasting on local communities and techniques for implementing and monitoring appropriate controls
- principles and techniques for auditing data and applying data to blasting strategies
- portable monitoring equipment characteristics, technical capabilities and limitations
- principles and techniques for auditing and reviewing environmental control and monitoring systems
- 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 monitor and control the effects of blasting on the environment
- 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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