Modification history

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| Release | Comments |
| Release 6 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0. |

| AHCEXP303 | Prepare and use explosives |
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| Application | This unit of competency describes the skills and knowledge required to prepare a blasting site and notify stakeholders of blasting work, mix explosives, detonate explosives using fuses and render the blast site safe following legislative, regulatory and workplace procedures.  The unit applies to individuals who work under broad direction and take responsibility for their own work. This includes using discretion and judgement in the selection and use of available resources for blasting.  State or Territory licensing, legislative or certification requirements apply in some jurisdictions. |
| Prerequisite Unit | Nil |
| Unit Sector | Explosives (EXP) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare for blasting | 1.1 Obtain permits/ licences and approved warning signs installed and prominently displayed according to legislative requirements  1.2 Notify property manager and controlling authority and other stakeholders of blasting plan and timing according to legislation  1.3 Clear blast site of stones and other potential missiles and site made safe  1.4 Place explosive products at required safety distance from identified hazards  1.5 Prepare holes for charge(s) according to blasting plan  1.6 Remove equipment used for preparing holes to prescribed safe distance according to Australian Standards, legislation and regulations  1.7 Advise neighbours and other stakeholders affected by the planned blasting program |
| 2. Prepare explosives | 2.1 Calculate quantities of explosive components required to achieve the desired blast for prevailing conditions  2.2 Transport explosives or explosive mix to site according to work health and safety procedures and legislative requirements  2.3 Calculate the precise explosive components to ensure minimum residual mix to be destroyed  2.4 Prepare explosives according to defined recipe and requirements according to workplace procedures  2.5 Assemble fusing and detonating components for explosive requirements in preparation for blasting |
| 3. Place charges | 3.1 Place or pack explosives elements in prepared holes according to safe working procedures, Australian standards, legislation and regulations.  3.2 Stem and tamp holes prior to the attachment of the firing system according to blasting requirement and safety procedures.  3.3 Check electrical firing circuits or fire fuses for continuity and/or earthing  3.4 Clear extraneous materials from blast site to safe distances in accordance with work place standards.  3.5 Re-check blast site and surrounds to ensure that non-essential personnel are not endangered  3.6 Place blasting mats or other control devices according to blasting plan  3.7 Guard blast area according to legislative requirements and work place procedures |
| 4. Fire charges | 4.1 Implement prescribed warning notification procedures according to work place procedures and industry standards.  4.2 Re-check blasting site to ensure correct placement of explosives and all safety procedures have been implemented according to supervisor or shot firer instructions  4.3 Implement audible and visual warning signals according to workplace safety procedures  4.4 Initiate firing procedures using manual or electric firing system according to blasting plan |
| 5. Conduct post-firing procedures | 5.1 Ensure misfires are identified prior to all clear signals being given by count charges during firing procedure or inspection of blast site  5.2 Implement misfire procedures according to workplace and regulatory requirements  5.3 Ensure site is safe and all-clear signal is given according to industry practice and legislative requirements  5.4 Discard, destroy or store surplus, unserviceable and defective explosives and detonators according to workplace and environmental procedures  5.5 Maintain records according to work place and legislative requirements |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |
| Reading | * Interpret permits, regulations and explosive documentation and consolidates information to determine requirements for the safe use of explosives. |
| Writing | * Prepare permit applications, signage and notifications for explosive use to ensure compliance with regulations |
| Oral communication | * Effectively participate in verbal exchanges using collaborative and inclusive techniques including active listening and questioning and reading of verbal and non-verbal signals to convey and clarify planned blasting works to neighbours and stakeholders |
| Numeracy | * Calculate the amount of explosive materials required for each charge and check that each charge has been set and detonated |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCEXP306 Prepare and use explosives | AHCEXP303 Prepare and use explosives | Reinstated unit | Equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet:  https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72 |

| TITLE | Assessment requirements for AHCEXP303 Prepare and use explosives |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.  There must be evidence that on at least one occasion that the individual has:   * obtained the permits and licenses for blasting * informed neighbours and post notices for blasting * prepared blast site to place the explosive * prepared explosives and the initiator device according to best safety practice and regulations * placed and fired charges according to best safety practice and regulations * conducted post-firing procedures for misfires, site checks, the disposal of surplus, unserviceable and defective explosives, and recording procedures. * used explosives safely and effectively according to work place requirements * disposed of surplus, defective or unwanted detonators or explosives safely * mixed explosives components correctly and uniformly * applied regulations relating to explosives used according to work place requirements * maintained records. | |

| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * fire precautions and prevention procedures * explosives mixing procedures and safe handling * calculations required for mixing explosives for size of blast * explosives preparation, placement, firing and post firing procedures * prescribed timing and/or practice drills for miss fire including the use of water jets and additional charges * regulations relating to explosives use in the work place and applications and permits required * use, storage and detonation of explosives * environmental issues and risks to livestock, natural landscape and contamination * the Australian Standard relating to preparing and using explosives which includes: * operations prior to charging * charging * preparation for firing * firing * misfires * preparation of primers. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * skills must be demonstrated in an environment that accurately represents workplace conditions and that exposes individuals to live detonation conditions. * safe transport and storage facilities suitable for explosives * resources, equipment and materials: * explosives, detonators and fuses * safety equipment * specifications: * access to policies, procedures, processes for the safe use of explosives * access to explosives safety data sheets * workplace instructions/job specifications for a blasting operation * access to legislation and Australian Standards for the use of explosives * relationships: * neighbours and stakeholders * supervisor, shot firer   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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