Modification history

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| Release | Comments |
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| AHCEXP303 | Prepare and use explosives |
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| Application | This unit covers carrying out explosive procedures including preparation, mixing, detonation and clean up safely in the field and defines the standard required to: obtain the appropriate permits and licenses for blasting; inform neighbours and post notices for blasting; prepare the blast site to place the explosive; prepare explosives and the initiator device according to best safety practice and regulations; place and fire charges according to best safety practice and regulations; conduct post-firing procedures for misfires; site checks; the disposal of surplus, unserviceable and defective explosives; recording procedures.  The preparation and use of explosives is likely to be under limited supervision with checking related to overall progress. Responsibility for the notification of others, and the duty of care for their safety, is also involved.  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 Permits/ licences are obtained and approved warning signs installed and prominently displayed according to legislative requirements.  1.2 Property manager and relevant controlling authorities are notified of blasting plans and timing as required by legislation.  1.3. The area where the charges are to be used is cleared of stones and other potential missiles.  1.4. The blast site is cleared and made safe prior to charges being placed.  1.5. All explosive products are placed at the required safety distance from any identified hazards.  1.6. Appropriate holes are drilled/dug to place the charge(s) in line with blasting plans.  1.7. Drilling/digging equipment is removed to the prescribed safe distance in accordance with Australian Standards, Acts and Regulations.  1.8. Neighbours and members of the public likely to be concerned or disturbed by shock effects are advised of the blasting program. |
| 2. Prepare explosives | 2.1. Quantities of explosives components required are calculated to match the application and prevailing conditions.  2.2. Required explosives are assembled on site, or an explosives mix (of homogenous composition) is calculated precisely to ensure minimum residual mix to be destroyed, and is prepared in accordance with defined requirements.  2.3. Required fusing and detonating components are assembled to match the established explosive requirements in preparation for blasting. |
| 3. Place charges | 3.1. Explosives elements are placed in holes or packed using safe working procedures and methods and in accordance with Australian Standards, Acts and Regulations.  3.2. All holes are stemmed and tamped prior to the attachment of the firing system to maximise safety to all personnel and the efficiency of the blasting.  3.3. Electrical firing circuits or fire fuses are checked for continuity and/or earthing as required.  3.4. All extraneous materials are cleared from the site to safe distances in accordance with enterprise standards.  3.5. Routine re-checks of the site and surrounds are performed to ensure that no non-essential personnel are endangered.  3.6. Blasting mats or other control devices are placed as appropriate according to the blasting plan.  3.7. Blast area is guarded according to legislative requirements and enterprise practices. |
| 4. Fire charges | 4.1. Prescribed warning notification procedures are carried out in accordance with enterprise and industry standards.  4.2. The blasting site is re-checked to ensure correct placement of explosives and ensure that all safety procedures have been implemented according to supervisor or shot firer's instructions.  4.3. Warning signals including audible and visual signals are issued to ensure that the site is clear.  4.4. Firing procedures are initiated through manual or electric firing systems. |
| 5. Conduct post-firing procedures | 5.1. Charges are counted as they fire or are inspected safely post blasting to ensure that misfires are readily identified prior to all clear signals being given.  5.2. Misfire procedures are implemented after prescribed timing and/or practice drills conducted using water jets or additional charges in accordance with Australian Standards, Acts and Regulations.  5.3. Site checks are carried out to ensure that the site is safe and the all-clear signal is given in line with industry practice and legislative requirements.  5.4. Surplus, unserviceable and defective explosives and detonators are destroyed or discarded or stored in line with prescribed procedures and in consideration of the environmental impact.  5.5. Accurate records are completed and kept in line with enterprise 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 |
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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCEXP30 Prepare and use explosives | AHCEXP303 Prepare and use explosives |  | 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  The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:   * obtain the appropriate permits and licenses for blasting * inform neighbours and post notices for blasting * prepare the blast site to place the explosive * prepare explosives and the initiator device according to best safety practice and regulations * place and fire charges according to best safety practice and regulations * conduct post-firing procedures for misfires, site checks, the disposal of surplus, unserviceable and defective explosives, and recording procedures. * use explosives safely and effectively according to enterprise requirements * dispose of surplus, defective or unwanted detonators or explosives safely * correctly and uniformly mix explosives components * apply the regulations relating to explosives use according to enterprise requirements * use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks * use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning techniques, active listening, clarifying information and consulting with supervisors as required * use numeracy skills to estimate, calculate and record routine workplace measures * use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities. | |

| 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 * appropriate explosives mixing procedures * the calculation of explosives quantities * explosives preparation, placement, firing and post firing procedures * the regulations relating to explosives use in the enterprise * relevant standards issued by Standards Association of Australia * related environmental issues and risks to livestock (including poisoning).   the Australian Standard relating to preparing and using explosives (AS 2187, Part 2 1993) 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   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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