



Australian Government

DEFEO900A Develop explosive ordnance disposal techniques and render-safe procedures

Release 2

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Modification History

| Release | TP version | Comments |
|---------|------------|------------------|
| 2 | DEF12 V2 | Layout adjusted. |
| 1 | DEF12 V1 | First release. |

Unit Descriptor

This unit covers the competency required to develop *explosive ordnance* disposal (EOD) techniques and *render-safe procedures* (RSPs) by members of the Australian Defence Force. The development of EOD techniques and RSPs is a process which would not normally be undertaken except in an operational environment where time was of essence and normal techniques were not be feasible or possible.

Application of the Unit

This competency normally applies to the individual who is required to develop explosive ordnance disposal techniques and RSPs as a consequence of an operational requirement. The development of explosive ordnance disposal techniques and RSPs is a process primarily in support of the civilian community/authority but may also be conducted under a variety of conditions, including wartime and peacekeeping. It would not normally be conducted except under exceptional circumstances and requires a detailed knowledge of EOD techniques and RSPs.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

DEFEO707C Conduct explosive ordnance disposal operations

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 required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| 1. Locate, assess and identify explosive device | 1.1 <i>Explosive device</i> is located and its components are identified in accordance with specified procedures 1.2 Explosive device construction is investigated and identified in accordance with current procedures 1.3 <i>Controlling authority</i> is advised of safety and evacuation requirements 1.4 <i>Area security</i> is confirmed in accordance with current procedures 1.5 <i>Contact and liaison with other emergency services</i> is established on arrival and maintained in accordance with current procedures 1.6 <i>Specialist advice</i> is sought in accordance with assessment requirements and standard procedures |
| 2. Determine render-safe procedure/dispose of explosive device | 2.1 Render-safe /disposal method is determined in accordance with <i>situation considerations</i> 2.2 <i>Equipment, tools and stores</i> required to render-safe/dispose of explosive device is identified and prepared for use in accordance with authorised procedures 2.3 RSP is conducted in accordance with developed process including <i>work health and safety (WHS) requirements and recognised safety precautions</i> 2.4 Equipment is operated in accordance with current instructions 2.5 Device and immediate area is inspected and either declared safe or alternate RSP/disposal operation is planned as required by policy and procedures |
| 3. Finalise activities | 3.1 Render-safe /disposal method is documented and distributed in accordance with policy and procedures 3.2 Equipment is recovered, refurbished and secured in accordance with current policy and procedures 3.3 <i>Post explosive device disposal clearance</i> is conducted in accordance with current policy and procedures 3.4 Explosive device disposal reports are completed and processed in accordance with current policy and procedures 3.5 Technical evidence is provided to inquiries/courts as required |

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- apply consequent mitigation principles
- apply operational safety
- apply safety template requirements
- apply time management
- calculate and apply time and safety distance
- communicate orally and in writing
- conduct liaison
- conduct site preparation and refurbishment
- develop render-safe/disposal methods
- maintain documentation
- operate specialist explosive ordnance disposal vehicle
- read, access, interpret and apply technical instructions

Required Knowledge

- blast/fragmentation/thermal mitigation
- characteristics and limitations of explosive device to be disposed/rendered safe
- consequent mitigation principles
- documentation requirements
- equipment handling requirements
- initiation procedures
- net explosive quantity estimations
- operational safety
- relevant testing procedures
- safety distance calculation procedures
- site preparation and refurbishment requirements
- theory of explosive ordnance design

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to comply with:

- relevant WHS requirements
- recognised safety precautions

Assessment must also confirm the ability to:

- perform render-safe/disposal in a manner which maximises individual safety and the safety of others
- correctly locate explosive device
- liaise with other agencies
- prepare and operate equipment, tools and stores
- develop safe disposal of/ render-safe of explosive device
- prepare and refurbish incident site or equipment
- calculate and maintain safety distances and cordons
- apply consequent mitigation principles
- gather and secure evidence
- maintain documentation

Consistency in performance

Competency should be demonstrated in a range of actual or simulated explosive device render-safe/disposal contexts.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated work environment, in accordance with all relevant legislation and Defence requirements.

Specific resources for assessment

Access is required to:

- specialised explosive device disposal equipment
- explosive device that is to be disposed/rendered safe

Method of assessment

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of

assessment.

Assessment may occur in an operational environment or in an industry-approved simulated work environment.

Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

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 in the Performance Criteria is detailed below.

| | |
|---|---|
| <p><i>Explosive ordnance</i> may include:</p> | <ul style="list-style-type: none"> • All munitions containing explosives, nuclear fission or fusion materials and biological and chemical agents such as bombs and warheads; guided and ballistic missiles; artillery, mortar, rocket and small arms ammunition; all mines, torpedoes and depth charges; demolition charges; pyrotechnics; clusters and dispensers; cartridge and propellant actuated devices; electro explosive devices; clandestine and other improvised explosive devices; and all similar or related items or components explosive in nature |
| <p><i>RSPs</i> may be:</p> | <ul style="list-style-type: none"> • By remote or manual means and may be effected by: <ul style="list-style-type: none"> • disruption • explosive • non-explosive • other render-safe procedure |
| <p><i>Explosive device</i> may include:</p> | <ul style="list-style-type: none"> • Devices placed or fabricated in an improvised manner that incorporates destructive, lethal, noxious, explosive, pyrotechnic or incendiary chemicals designed to destroy, disfigure, distract or harass • Non military explosive components • Unfamiliar explosive ordnance |
| <p><i>Controlling authority</i> may be:</p> | <ul style="list-style-type: none"> • Civil authorities • Military |
| <p><i>Area security</i> may include:</p> | <ul style="list-style-type: none"> • Check points • Cleared areas • Lighting • Screening • Sentries |
| <p><i>Contact and liaison with other emergency services</i> may cover:</p> | <ul style="list-style-type: none"> • Authorisation • Chain of evidence • Control arrangements • Evacuation requirements • Media details and releases • Safety aspects |
| <p><i>Specialist advice</i> may include:</p> | <ul style="list-style-type: none"> • Engineering • Law enforcement • Other explosive ordnance disposal specialists |

| | |
|---|---|
| | <ul style="list-style-type: none"> • Scientific |
| <i>Situation considerations</i> may include: | <ul style="list-style-type: none"> • Chemical principles and concepts underpinning explosive ordnance • Consequent mitigation principles • Initiation methods • Operational safety • Operational situation • Theory of explosive ordnance design |
| <i>Equipment, tools and stores</i> may include: | <ul style="list-style-type: none"> • Chemical detection/analysis equipment • Digging tools • Electrical firing equipment • Hook and line • Personal protective equipment and may include reference materials such as: <ul style="list-style-type: none"> • STANAGS • Defence service instructions • memorandums of understanding • standing operating procedures • range instructions • Remote position device including tool kit and complete equipment schedule • Shock wave actuated disrupter • Specialist explosive ordnance disposal vehicle • Telescope • Weapons, which may include: <ul style="list-style-type: none"> • shaped charges • explosively formed projectiles • de-armer • X-ray including complete equipment schedules and processing equipment |
| <i>Work health and safety requirements and recognised safety precautions</i> may: | <ul style="list-style-type: none"> • Be subordinate to the operational requirement in the performance of improvised explosive device disposal operations • Involve applying recognised safety precautions |
| <i>Post explosive device disposal clearance</i> includes: | <ul style="list-style-type: none"> • Collecting and securing forensic evidence |

Unit Sector(s)

Not applicable.