



Australian Government

DEFEO514D Maintain pyrotechnics and countermeasures

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 maintain pyrotechnics and countermeasures to requirements as specified by the Australian Defence Force.

Application of the Unit

This competency normally applies to the individual who is required to maintain pyrotechnics and countermeasures to requirements as specified by the Australian Defence Force.

The unit includes the identification and selection of tools and equipment, the application of organisational safety requirements and appropriate legislative and regulatory requirements.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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. Prepare for maintenance	1.1 Maintenance requirements of pyrotechnics and countermeasures are identified from work requests/instructions, analysed and confirmed 1.2 Work health and safety (WHS) requirements, including those contained in organisational procedures, are applied throughout the operation 1.3 Pyrotechnics and countermeasures to be maintained are identified, confirmed and acquired in accordance with organisation policy and procedures, and technical documentation 1.4 Technical references, tools, equipment, consumables and packaging components are identified, acquired and prepared in accordance with organisation procedures 1.5 Net explosive quantities and compatibility are identified, calculated, assessed and applied throughout the operation 1.6 Environmental conditions are monitored and, where appropriate, maintained in accordance with organisation policy
2. Maintain pyrotechnics and countermeasures	2.1 Pyrotechnics and countermeasures are inspected in accordance with organisation policy and procedures 2.2 Relevant maintenance is conducted in accordance with organisation procedures, technical specifications and drawings 2.3 Emergency and contingency procedures are applied in accordance with organisation policy 2.4 Relevant tests are conducted and recorded in accordance with organisation procedures, technical specifications and drawings
3. Complete the maintenance activity	3.1 Pyrotechnics and countermeasures are processed in accordance with the requirements specified in the work request 3.2 Equipment/tools are maintained in accordance with organisation policy and procedures 3.3 Housekeeping procedures are conducted in accordance with workshop requirements 3.4 Documentation and records are maintained in accordance with statutory, organisation and workshop requirements

Required Skills and Knowledge

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

Required Skills

- apply compatibility constraints
- apply environmental constraints
- apply operational safety
- apply relevant WHS requirements
- calculate net explosive quantity
- communicate orally and in writing
- conduct tests
- identify appropriate pyrotechnics and countermeasures
- identify and select appropriate tools and equipment
- maintain documentation
- use tools and equipment

Required Knowledge

- assessment of compatibility
- colour coding, marking and labels
- documentation requirements
- effects of environmental conditions
- maintenance procedures
- net explosive quantity calculations
- operational safety
- operations, characteristics and limitations of pyrotechnics and countermeasures to be maintained
- operations, characteristics and limitations of tools and equipment used in maintenance
- relevant WHS requirements
- testing procedures

Evidence Guide

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

Assessment must confirm the ability to comply with:

- organisational safety requirements
- appropriate legislative and regulatory requirements while maintaining pyrotechnics and countermeasures

Assessment must also confirm the ability to work safely within an explosive ordnance environment and to:

- calculate and apply net explosive quantity
- assess and apply compatibility
- conduct relevant tests
- maintain documentation

Consistency in performance

Competency should be demonstrated in a range of actual or simulated pyrotechnics and countermeasures maintenance 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 organisation requirements.

Specific resources for assessment

Access is required to:

- facilities and resources used in the storage, distribution or maintenance of explosive ordnance, including a licensed explosive site

Method of assessment

This unit may be assessed with the following unit:

- DEFEO101D Work safely with explosive ordnance

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.

<i>Pyrotechnics and countermeasures</i> include:	• All items currently on the Australian Defence Force in-service pyrotechnics and countermeasures inventory
<i>Organisation</i> may include:	• Defence organisation • Enterprises that work with explosive ordnance • Other government departments or instrumentalities that work with explosive ordnance
<i>Technical references</i> may include:	• Orders and instructions • Other publications • Technical drawings • Technical reference pamphlets
<i>Net explosive quantities</i> include:	• The explosive capacity calculated in a wide range of activities related to the storage, distribution and maintenance of explosive ordnance
<i>Compatibility</i> is:	• Assessed in a wide range of activities related to the storage, distribution and maintenance of explosive ordnance and other hazardous materials
<i>Environmental conditions</i> may include:	• Air quality • Heat • Humidity • Pressure
<i>Relevant maintenance</i> may include:	• Cleaning • Components change out • Fuzing and defuzing • Painting
<i>Tests</i> may include:	• Continuity tests • Gauging • Measuring
<i>Processing</i> may include:	• Forwarding pyrotechnics and countermeasures for inspection, testing, maintenance, storage or issue, and may include some additional preparation such as packaging
<i>Documentation and records</i> may include:	• Receipt and issue records • Timesheets • Work records

Unit Sector(s)

Not applicable.