



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **DEFEO514D Maintain pyrotechnics and countermeasures**

**Release: 1**

## **DEFEO514D Maintain pyrotechnics and countermeasures**

### **Modification History**

Not applicable.

### **Unit Descriptor**

#### **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**

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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**

#### **Pre-requisite Unit/s**

Nil

## Employability Skills Information

**Employability Skills** 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 Required Skills and Knowledge and/or 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 Occupational health and safety (OH&S) 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

**ELEMENT****PERFORMANCE CRITERIA****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

### 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 OH&S 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 OH&S requirements
- testing procedures

## Evidence Guide

### EVIDENCE GUIDE

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### 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

**EVIDENCE GUIDE**

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

## Range Statement

### 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.

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



**RANGE STATEMENT****Processing may include**

Forwarding pyrotechnics and countermeasures for inspection, testing, maintenance, storage or issue, and may include some additional preparation such as packaging

**Documentation and records may include**

Receipt and issue records  
Timesheets  
Work records

**Unit Sector(s)**

Not applicable.