



Australian Government

DEFEO806A Conduct environmental tests

Release: 2

DEFEO806A Conduct environmental tests

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 conduct environmental tests of explosive ordnance and other equipment.

Environmental tests are conducted to ensure weapon systems and explosive ordnance in service with the Australian Defence Force meet the required environmental standards. The tests are also conducted on other Defence and non Defence equipment. The environmental tests can be conducted as a component of the assessment of safety and suitability for service (S³ process) or as an in-service survey.

This unit does not cover the planning of environmental tests, which is covered in DEFEO602C Plan explosive ordnance trials.

Application of the Unit

This unit was developed for environmental testing specialists working within proof and experimental organisations in Defence but is applicable to any individual in this field of work. Typically these individuals must demonstrate the ability to work as individuals and as part of a team under direct and/or indirect supervision, use discretion and judgement, and take responsibility for the quality of their output. All activities are carried out in accordance with relevant organisational policies and procedures.

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 environmental tests	1.1 Stakeholders and test participants are briefed in accordance with organisational policies and procedures, and test plan 1.2 Safety systems and procedures are checked and initiated in accordance with organisational policies and procedures, and test plan 1.3 Information on resource requirements and availability is obtained and confirmed in accordance with procedures 1.4 Information support systems for environmental tests, including achievable reporting and recording processes, are prepared in accordance with resource requirements 1.5 Coordination issues with others affected by the tests are negotiated and resolved 1.6 Safety traces are constructed when required, in accordance with standard procedures 1.7 Work health and safety (WHS) principles and requirements are identified and observed throughout the test process
2. Conduct tests	2.1 Environmental test planners are identified and liaison is effected in accordance with policies and procedures 2.2 Test plan is implemented, monitored and amended based on changing circumstances in accordance with methodologies and procedures 2.3 Tests are conducted in accordance with testing requirements 2.4 Resources are allocated to testing tasks in accordance with test plan and resource availability 2.5 Data being generated by tests is recorded in accordance with the agreed methodology
3. Report on test results	3.1 Data generated by the test is collected and reported in accordance with policies and procedures 3.2 Options and recommendations resulting from the test are provided in a clear and comprehensive format 3.3 Post testing reports, statistical reports and other records are produced and maintained in accordance with requirements

Required Skills and Knowledge

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

Required Skills

- allocate resources
- apply organisational safety policies and structures
- apply organisational WHS requirements
- assess risks
- communicate effectively with stakeholders
- coordinate activities
- evaluate information
- liaise effectively with stakeholders
- write reports

Required Knowledge

- environmental testing methodologies
- evaluation processes
- organisational WHS requirements
- organisational safety policies and structures
- reporting procedures
- resource allocation procedures
- resource requirements
- risk assessment

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 apply environmental test methodologies and procedures including the coordination of test resources and the documentation of test results.

Assessment must also confirm the ability to conduct environmental tests against required standards.

Consistency in performance

Competency should be demonstrated in a range of actual or simulated environmental test 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 organisational requirements.

Specific resources for assessment

Access is required to

- facilities and resources used in conducting environmental tests

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>Stakeholders</i> may include:	• Clients or customers (internal and external) • End user/s • General public • Industry • Landowner/s • Organisation's senior management • Other agencies • Other functional areas within the organisation • Project teams • Relevant interest groups • Sponsor/funding bodies • Steering committee members • Supplier/service provider • Unions
<i>Organisations</i> may include:	• Defence • Defence contractors and sub-contractors • Defence Materiel Organisation • Defence Science and Technology Organisation • International test agencies
<i>Policies and procedures</i> may include:	• Government and organisational policy, guidelines and procedures relating to: • delegation approvals • industrial agreements • procurement guidelines • resourcing • risk management • security • strategic or operational plans • technical and regulatory framework • testing and evaluation • training • Relevant commonwealth, state/territory and local laws affecting organisation's administration such as: • financial management and accounting legislation and regulations • OH&S legislation

	• public sector management acts
Test plans may include:	• Acquisition strategies • Budget and financial management strategy • Contract management • Cost estimates • Evaluation criteria • Expected/measurable outcomes • Facilities • Functional performance specifications • Governance strategy • Implementation strategy • Inclusions and exclusions • Information/communication strategy • Intellectual property strategies • Milestones • Objectives • Occupational concept document • People plan including human resource management and human resource development • Performance criteria/indicators • Purpose • Quality assurance • Quality control • Quality standards • Rationale • Required resources • Resource management • Risk management • Roles and responsibilities • Safety criteria • Schedule/timeline • Specific equipment, instrumentation, and/or specialised facilities and required conditions • Task/WBS • Test and evaluation master plan (TEMP) criteria • Test concept document • Testing control mechanisms • Testing deliverables and their acceptance criteria
Information support systems may include:	• Computerised systems • Manual systems
Environmental tests may	• Dust and dirt

include:	• Extremes of heat and cold • Humidity and rain • Vibration and shock
<i>Methodologies and procedures</i> may include:	• Those established by: • divisions • manufacturer • organisation • Or may be specified by the client
<i>Tests</i> may include:	• Design and manufacture of specific test apparatus • Use of environmental chambers
<i>Resources</i> may include:	• Budgets • Materials • Personnel • Time
<i>Clear and comprehensive format</i> may include:	• Development of new procedures for future activities • Outcomes that can be easily understood • Solutions to problems that were faced during the testing

Unit Sector(s)

Not applicable.