



Australian Government

DEFEXO087 Assess the safety and suitability for service of explosives

Release: 2

DEFEXO087 Assess the safety and suitability for service of explosives

Modification History

Release 2. Modifications made to Foundation Skills and Assessment Conditions.

Release 1. This unit was released in DEF Defence Training Package release 1.0 and meets the Standards for Training Packages.

This unit supersedes and is equivalent to DEFEO004 Assess the safety and suitability for service of explosive ordnance.

- Unit code updated
- Content and formatting updated to comply with the new standards
- All PC transitioned from passive to active voice
- PC 1.1 and 3.1 reworded

Application

This unit describes the skills required to assess if the explosives will present an unacceptable hazard to the lives of Defence personnel or the public while being transported, stored or operated in a defined environment. It will also assess if explosives will function as designed and are not unacceptably degraded by the service environments encountered during the service life. It includes the requirement to identify the scope of the assessment process and to determine the requirement for any testing or trials prior to introduction into service.

The assessment is complex due to:

- scope
- degree of risk
- environmental, political, cultural and social factors that apply
- consequences of failure
- degree of control

This unit applies to those required to conduct an analysis of identified explosives for the purpose of determining their safety and suitability for service.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would make high level, fully independent judgements, applying a detailed knowledge of explosives, analysing complex data and producing specific documents detailing the outcomes of highly specialised technical functions. They would perform sophisticated tasks in highly specialised operational contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

Explosive Ordnance

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for a safety and suitability for service assessment of explosives

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | |
|------------|--|
| 1.1 | Receive and confirm assessment requirements and the agreed customer requirements |
| 1.2 | Identify the design precedents and safety principles of the explosives |
| 1.3 | Identify and confirm life cycle events for the explosives |
| 1.4 | Identify and define the predicted service environment for the explosives |
| 2 | 2.1 Identify hazards associated with the explosives |
| | 2.2 Evaluate hazards and determine the risk index for the explosives |
| | 2.3 Identify system hazards for the explosives |
| | 2.4 Identify and record actions to eliminate or control the hazards for stakeholder consideration |
| 3 | 3.1 Identify explosive chemistry |
| | 3.2 Identify and assess explosive train components |

	3.3	Identify and assess the environmental conditions for the explosives
	3.4	Evaluate the usage and disposal requirements of the explosives
4 Determine the requirement of explosive trials or tests	4.1	Determine the requirement for conduct of trials and/or evaluation of explosives
	4.2	Provide written instructions for trials and/or evaluation to the appropriate testing authority
	4.3	Conduct analysis of trials and/or evaluation outcomes
	4.4	Incorporate trial and/or evaluation outcomes in relevant reports and other documentation
5 Report and provide guidance on explosive safety and suitability for service	5.1	Record and report outcomes to all relevant stakeholders
	5.2	Finalise relevant safety and suitability for service certification and documentation

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit supersedes and is equivalent to DEFEO004 Assess the safety and suitability for service of explosive ordnance.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

Assessment Requirements for DEFEXO087 Assess the safety and suitability for service of explosives

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and includes:

- accessing and preparing information electronically or in hard copy
- applying risk management techniques
- communicating with stakeholders using a range of communication styles to suit different audiences and purposes
- scheduling multiple agencies
- writing recommendations and preparing plans requiring precision of expression
- conducting hazard and design assessments
- determining the requirements for trials or testing
- defining and documenting the Manufacture to Disposal Sequence (MTDS)
- providing technical advice to authorities

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and includes:

- Operational knowledge of:
 - integrated logistics support requirements for explosives
- In-depth knowledge of:
 - management tools suited to implementing safety and suitability for service evaluation processes
 - principles relating to the implementation of safety and suitability for service evaluation

processes

- explosive chemistry/physics/materials/design principles

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- acceptable means of simulation assessment
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and PPE currently used in industry.

Links

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