



Australian Government

DEFEXO083 Apply explosive ordnance design principles

Release: 2

DEFEXO083 Apply explosive ordnance design principles

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 DEFEO709D Apply explosive ordnance design principles.

- Unit code updated
- Content and formatting updated to comply with the new standards
- All PC transitioned from passive to active voice
- All Elements and PC rewritten with operational outcome of the unit maintained

Application

This unit describes the skills required to apply design principles of explosive ordnance in the conduct of various explosive ordnance operations and processes, such as demolition operations, improvised explosive device disposal operations, trials, technical investigations, platform integration, configuration, maintenance and interoperability.

This unit applies to those required to apply design principles of explosive ordnance in the conduct of various explosive ordnance operations and processes.

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 work independently and/or as part of a team, under indirect supervision, performing sophisticated tasks in a broad range of 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 Research and analyse design principles

PERFORMANCE CRITERIA

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

- 1.1 Identify and acquire references relevant to the design principles of explosive ordnance, components and associated weapons systems
- 1.2 Analyse design principle requirements within research material to develop weapons systems design criteria
- 1.3 Determine performance characteristics from the analysis of the design criteria and technical data
- 2.1 Determine explosives, explosive components and associated non-explosive components to achieve weapons design solutions
- 2.2 Design and prove a weapon solution
- 2.3 Complete documentation associated with the tasks

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 DEFEO709D Apply explosive ordnance design principles.

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 DEFEXO083 Apply explosive ordnance design principles

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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, interpreting and applying technical information
- applying quantitative and qualitative analysis
- applying research techniques
- determining the characteristics and the performance characteristics of explosive ordnance, components and associated weapons systems

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:
 - analysis processes and techniques
 - characteristics, technical capabilities and limitations of explosive ordnance, components and associated weapons systems
 - design principles of explosive ordnance, components and associated weapons systems
 - explosions and terminal effects
 - explosive chemistry, physics and materials
 - methods of explosive ordnance deployment
 - weapon engineering

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.

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