



Australian Government

Department of Education, Employment and Workplace Relations

DEFLS003B Maintain and fit immersion suits

Release: 1

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Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to maintain and fit immersion suits. There are two types of immersion suits: quick don and constant wear. Quick don usually does not require fitting while constant wear is custom fitted to the individual.

Maintaining an immersion suit includes inspecting, testing, isolating faults, replacing or sending away for repair, cleaning and packing prior to placing the item back into service.

Fitting an immersion suit includes adjusting the immersion suit to fit the individual because the item is not an off-the-shelf issue.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s LMPRTF09BA Use adhesives - 2

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. Maintain immersion suit	<ul style="list-style-type: none">1.1 Immersion suit is inspected for serviceability in accordance with <i>standard procedures</i>1.2 Immersion suit is tested for serviceability in accordance with standard procedures and manufacturers' specifications1.3 Identified <i>faults</i> beyond own authority to rectify are reported to supervisor and faulty immersion suit is quarantined1.4 Unserviceable <i>parts of the immersion suit</i> are replaced to render suit serviceable1.5 Immersion suit is cleaned in accordance with standard procedures1.6 Immersion suit is re-packed in accordance with standard procedures1.7 Immersion suit is presented for inspection by supervisor and work is not progressed until supervisor has completed inspections in accordance with standard procedures1.8 Relevant documentation is completed in accordance with standard procedures
2. Fit immersion suit	<ul style="list-style-type: none">2.1 Fitting process is explained to the participant so that optimal fit can be achieved2.2 Participant is measured to select appropriate size immersion suit2.3 Immersion suit is <i>adjusted</i> to optimise fit in conjunction with participant feedback2.4 Immersion suit fit is verified by the supervisor2.5 Relevant documentation is completed in accordance with standard procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required Skills

- ability to relate to people from a range of social, cultural and ethnic backgrounds, and physical and mental abilities
- deliver briefings to personnel in relation to operating, donning/doffing and fitting of immersion suits
- dispose of hazardous chemicals in accordance with approved methods and procedures
- handle, store and organise transport of equipment
- inflate/deflate immersion suits for maintenance
- information technology skills to access and input to documentation
- liaise with outside agencies relating to maintenance activities
- literacy skills for comprehending and interpreting documentation which may include:
 - aircraft documentation
 - maintenance documentation
 - survival and distress pyrotechnic documentation
 - maintenance and servicing schedules
 - flying schedules
 - technical publications
 - technical drawings
 - Material Safety Data Sheets (MSDS)
- operate and maintain personal protective equipment
- operate specialist tools including:
 - heat press
 - vacuum heat sealer
 - 3 Stage in-line breathing apparatus
 - filter extraction systems
 - spill kits
- problem solving skills for a limited range of differing procedural circumstances
- raise and complete maintenance documentation
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use hazardous chemicals and adhesives in relation to maintenance of immersion suits
- use relevant hand and power tools
- use testing and measuring equipment in accordance with approved methods

Required Knowledge

REQUIRED SKILLS AND KNOWLEDGE

- approved cleaning methods for aviation life support equipment
- chemical disposal procedures
- cold shock and hypothermia in relation to survival
- components of an immersion suit and their function
- critical nature of maintaining and fitting immersion suits
- different aviation trades and how they relate to each other
- emergency procedures in relation to chemical spills and emergency evacuation of personnel in distress
- environmental conditions that may affect immersion suits
- handling, storage and transit procedures relating to life support equipment
- handling and storage procedures relating to immersion suits (i.e. MACPAC highly susceptible to damage)
- legal responsibilities
- materials used to manufacture immersion suits (i.e. neoprene and gortex)
- modification requirements for immersion suits
- procedures in relation to organisation and aviation industry
- quality systems and standards
- reading and interpreting specifications
- operation of testing and measuring equipment, and tools used to maintain immersion suits
- physiological effects of flight
- priorities of survival and how they relate to immersion suits and associated ancillary equipment
- relevant legislation and procedures in relation to aviation industry
- relevant OH&S regulations/requirements, equipment, material and personal safety requirements
- relevant safety precautions
- repair limitations for immersion suits
- safety precautions relating to hazardous chemicals and adhesives used in the repair and manufacture of immersion suits
- specialist tool operation including:
 - heat press
 - vacuum heat sealer
 - 3 stage in-line breathing apparatus
 - filter extraction systems
 - spill kits
 - storing adhesives
- tool control procedures
- types of corrosion and contamination that may affect immersion suits
- use of aviation industry documentation
- use of immersion suits and associated ancillary equipment

REQUIRED SKILLS AND KNOWLEDGE

- use of maintenance documentation
- ultraviolet degradation

Evidence Guide

EVIDENCE GUIDE

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

Assessment must confirm the ability to change a seal or glove; to recognise limit of own authority; and to recognise a range of faults including incorrect manufacture.

Consistency in performance

Competency should be demonstrated over time with a range of fittings and maintenance activities.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated workplace environment.

Specific resources for assessment

Access to immersion suits, a live participant, and tools and equipment for fitting and maintaining immersion suits.

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.

Standard procedures may include

Australian Standards
Equipment manufacturers' specifications and procedures
Industry practices
Maintenance schedules
Occupational Health and Safety (OH&S) requirements
Organisational instructions/journal
Regulatory requirements

Faults may include

Contamination
Corrosion (e.g. zipper)
Delamination
Incorrect manufacture
Leaks
Lifting of tapes
Scuffing (e.g. boot)
Tears in suit and/or seals

Parts of the immersion suit may include

Boots
Gloves
Life line
Light
Seals (e.g. wrist, neck)
Whistle

Adjustment of the immersion suit may include

Leg length
Sleeve length
Trimming seals

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil