



Australian Government

AVIW3011 Defuel aircraft

Release: 1

AVIW3011 Defuel aircraft

Modification History

Release 1. This is the first release of this unit of competency in the AVI Aviation Training Package.

Application

This unit involves the skills and knowledge required to defuel aircraft, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes conducting pre-operational checks on defueller vehicle and auxillary equipment, positioning defueller vehicle and conducting quality checks on product. It also includes defuelling aircraft, completing post-defuelling operations and completing documentation.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to equipment and system operations of ground operations personnel, and contributes to safe and effective performance in complex aviation operational environments.

Operations are conducted as part of recreational, commercial and military aircraft activities across a variety of operational contexts within the Australian aviation industry.

Work is performed independently or under limited supervision as a single operator or within a team environment.

Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Use for Defence Aviation is to be in accordance with relevant Defence Orders, Instructions, Publications and Regulations.

Pre-requisite Unit

Not applicable.

Competency Field

W – Equipment and Systems Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Conduct pre-operational checks on defueller vehicle and auxillary equipment

- 1.1 Personal protective equipment is selected and used in accordance with workplace procedures
- 1.2 Hazards are identified, risks are assessed and hazard management is implemented
- 1.3 Reason for defuelling and quantity of fuel to be defuelled is confirmed
- 1.4 Type of aircraft and requirement for overwing or underwing operation is confirmed
- 1.5 Pre-operational checks on vehicle and auxiliary equipment are made
- 1.6 Ullage in defuelling vehicle or auxillary equipment is checked

2 Position defueller vehicle

- 2.1 Defuelling vehicle is moved airside or landside to aircraft
- 2.2 Aircraft is approached after checks are made to confirm aircraft engines have stopped and aircraft wheel chocks are in place
- 2.3 Vehicle is positioned either underwing or standoff, depending on aircraft type
- 2.4 Appropriate precautions are taken to avoid risk of collision with aircraft control surfaces, aircraft engines and other vehicles
- 2.5 Defueller vehicle is parked in a position that provides easiest route for evacuation in an emergency

3 Conduct quality checks on product

- 3.1 Required documentation is obtained from airline engineer/representative
- 3.2 Sample of product on board aircraft is obtained and visual quality checks are made in accordance with workplace procedures
- 3.3 Defuelling operations are initiated in response to satisfactory fuel quality checks

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| | 3.4 | Defuelling operations are initiated into contingency storage areas for further processing in response to unsatisfactory fuel quality checks |
| 4 Defuel aircraft | 4.1 | Vehicle is grounded and bonding lead is connected to aircraft |
| | 4.2 | Defuelling safety precautions are implemented prior to commencement of operations |
| | 4.3 | Defuelling operations are commenced either using auxiliary power unit (APU) or ground power unit (GPU) |
| | 4.4 | Quantity defuelled on completion is verified in accordance with workplace procedures |
| 5 Complete post-defuelling operations | 5.1 | Hoses are disconnected, retracted and stowed |
| | 5.2 | Fuel confirmed as acceptable for return to storage is discharged into designated segregated storage tank or retained in fueller for ongoing supply operations |
| | 5.3 | Fuel identified as contaminated is disposed of in accordance with workplace procedures and regulatory requirements |
| | 5.4 | Fueller used to transfer contaminated fuel is de-contaminated |
| 6 Complete documentation | 6.1 | Hard copy documentation and paperwork is completed as required and airline representative's signature is obtained |
| | 6.2 | Electronic fuel management systems are used to report, record and verify refuel operations |

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.

Pre-operational checks must include:

- auxiliary equipment
- brake interlock override switch seal
- brake test

- Personal protective equipment must include:
- personal protection equipment (PPE)
 - radio check with base
 - required documentation
 - sampling equipment and water detection capsules
 - serviceability of ladder or portable steps fire extinguishers
 - sufficient ullage in defueller for planned defuelling operations
 - visual inspection for leaks, defects and obstructions
 - approved uniform
 - gloves
 - hearing protection
 - high visibility clothing
 - mask or respirator
 - safety glasses
 - safety headwear and footwear
- Hazards must include one or more of the following:
- contamination of, or from, materials being handled
 - dust
 - fuel vapours
 - hazardous or dangerous materials
 - hot engines, static electricity, sparks and other forms of ignition
 - jet blast
 - noise
 - other fuel additives
 - other vehicles on tarmac
 - rotating propellers
 - spill, leakages, ruptures

Unit Mapping Information

This unit replaces and is equivalent to AVIW3011B Defuel aircraft.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>