



Australian Government

Department of Education, Employment and Workplace Relations

AVIW2029A Operate aircraft refuelling nozzle

Revision Number: 1

AVIW2029A Operate aircraft refuelling nozzle

Modification History

Not applicable.

Unit Descriptor

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This unit involves the skills and knowledge required to operate a fuel nozzle for refuelling of aircraft. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Application of the Unit

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Work involves the application of quality control procedures and regulatory requirements to the operation of an aircraft refuelling nozzle and conduct of hot refuelling of aircraft across a variety of operational contexts within the Australian aviation industry.

Use for ADF Aviation is to be in accordance with relevant Defence Orders and Instructions and applicable Civil Aviation Safety Authority (CASA) compliance.

Work is performed under limited supervision usually within a team environment.

This unit of competency is nominally packaged at Certificate II.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1 Prepare for refuelling operations

- 1.1 Pre-operational checks of equipment are conducted in accordance with workplace procedures
- 1.2 Hazards, problems and/or defects identified during pre-operational checks are reported/rectified in accordance with workplace procedures
- 1.3 Outcomes of pre-operational checks are recorded in accordance with workplace procedures
- 1.4 Refuelling site is selected
- 1.5 Personal protective equipment is fitted

2 Carry out refuelling operations

- 2.1 Clearance to commence refuelling is obtained
- 2.2 Nozzle is grounded and the bonding lead is connected to the aircraft in accordance with workplace procedures
- 2.3 Instructions regarding fuel quantity are obtained
- 2.4 Care is taken that dust caps are not placed inside wing panels
- 2.5 Aircraft is refuelled in accordance with workplace procedures

3 Complete post-refuelling operations

- 3.1 Refuelling completion operations are conducted in accordance with workplace procedures
- 3.2 Fuel sample is taken and visual check is made prior to aircraft departure in accordance with workplace procedures
- 3.3 Equipment is disconnected and stowed in accordance with workplace procedures
- 3.4 Post refuelling documentation is completed in accordance with workplace procedures

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

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

Required knowledge:

- Relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders and other regulations pertaining to quality control processes carried out when operating an aircraft refuelling nozzle
- Relevant OH&S and environmental procedures and regulations
- Knowledge of quality control principles and processes as they apply to the operation of an aircraft refuelling nozzle
- Workplace procedures for conducting various quality control operations related to operating an aircraft refuelling nozzle
- Manufacturers instructions for equipment used in quality control processes
- Risks that exist when operating an aircraft refuelling nozzle and related risk control procedures and precautions
- Problems that may occur when operating an aircraft refuelling nozzle and appropriate action that should be taken in each case

Required skills:

- Communicate effectively with others when operating an aircraft refuelling nozzle
- Read and interpret instructions, regulations, procedures and other information relevant to operating an aircraft refuelling nozzle
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to operating an aircraft refuelling nozzle
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when operating an aircraft refuelling nozzle
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Promptly report and/or rectify any identified problems that may occur when operating an aircraft refuelling nozzle in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when operating an aircraft refuelling nozzle
- Apply precautions and required action to minimise, control or eliminate hazards that may exist when operating an aircraft refuelling nozzle
- Monitor and anticipate operational problems and hazards and take appropriate action
- Monitor work activities in terms of planned schedule
- Modify activities dependent on differing workplace contingencies, situations and environments

REQUIRED KNOWLEDGE AND SKILLS

- Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- Adapt to differences in equipment and operating environment in accordance with standard operating procedures
- Select and use required personal protective equipment conforming to industry and OH&S standards
- Implement OH&S procedures and relevant regulations
- Identify and correctly use equipment required when operating an aircraft refuelling nozzle

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

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

- The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of:
- conducting pre-operational checks and reporting/rectifying identified hazards, problems and/or defects
- refuelling aircraft in accordance with workplace procedures
- taking fuel sample and conducting visual check prior to aircraft departure

Context of and specific resources for assessment

- Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- Resources for assessment include:
- a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
- access to an appropriate range of relevant operational situations in the workplace
- In both real and simulated environments, access is required to:
- relevant and appropriate materials and equipment, and
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

- Assessment of this unit must be undertaken by a registered training organisation
- As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests
- Practical assessment must occur:
- through activities in an appropriately simulated environment at the registered training organisation, and/or
- in an appropriate range of situations in the workplace

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.

Refuelling operations may include:

- various aircraft types
- international, domestic and regional airports
- variable weather conditions including day and night
- single or team operations

Pre-operational checks may include:

- serviceability of ladder or portable steps
- fire extinguisher
- personal protective equipment (PPE)
- visual inspection for leaks, defects and obstructions
- sufficient fuel
- radio check
- documentation
- auxiliary equipment check

Workplace procedures may include:

- company procedures
- enterprise procedures
- organisational procedures
- established procedures
- local instructions
- standard operating procedures
- manufacturers instructions

Hazards, problems and/or defects may include:

- hot engines, static electricity, sparks and other forms of ignition
- contamination of or from materials being handled
- spills, leakages, ruptures
- fuel vapours
- other aircraft or vehicles on tarmac
- jet blast or rotor wash
- rotating propellers
- hazardous or dangerous materials
- noise
- dust
- heat
- other additives (e.g. water, methanol, icing inhibitors)

Personal protective equipment may include:

- gloves
- safety glasses
- hearing protection
- safety headwear and footwear

RANGE STATEMENT

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|---|---|
| Clearance to refuel may include: | <ul style="list-style-type: none">• mask or respirator• high visibility clothing• approved clothing• air traffic control• aircraft pilot• aircrew• airline engineers• supervisors or managers• other refuelling staff• ground support staff• technical staff |
| Instructions may include: | <ul style="list-style-type: none">• interpersonal communications• written• radio• telephone• other electronic means |
| Post-refuelling documentation may include: | <ul style="list-style-type: none">• written• electronic |
| Information/documents may include: | <ul style="list-style-type: none">• sections of Civil Aviation Safety Regulations and Civil Aviation Orders relevant to refuelling operations• International Air Transport Association (IATA) Guidelines for Aviation Fuel Quality Control, and Operating Procedures for Joint Inter Plane Fuelling Services (JIG Guidelines)• OH&S and environmental protection regulations• workplace procedures and instructions and job specification• airport airside drivers handbook• loading and fuelling operational checklists• emergency procedures• flight schedules• manufacturers specifications and instructions for the fueller/dispenser vehicle and auxiliary equipment• induction and training manuals• conditions of service, legislation and industrial agreements including workplace agreements and awards |
| Applicable regulations and legislation may include: | <ul style="list-style-type: none">• relevant Civil Aviation Safety Regulations and Civil Aviation Orders• IATA Guidelines for Aviation Fuel Quality Control, and Operating Procedures for Joint Inter Plane Fuelling Services (JIG Guidelines) |

RANGE STATEMENT

- Australian Dangerous Goods Code (ADG Code)
- relevant OH&S legislation
- environmental protection legislation
- relevant Australian Standards
- industrial relations and workplace compensation legislation

Unit Sector(s)

Not applicable.

Competency field**Competency Field**

W - Equipment and Systems Operations